



HYDROGEN ECONOMY

New Delhi Dialogue 2021

15 APRIL 2021 | VIRTUAL
2.00pm – 8.00pm (IST)



Ministry of Petroleum and Natural Gas
Government of India



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THE DRIVER OF GLOBAL ENERGY DEMAND



“Our approach for cleaner energy and low carbon economy will be guided by a well-defined energy transition road map with seven key drivers, as outlined by Hon’ble Prime Minister of India Shri Narendra Modi in October last year. This essentially means it will be a healthy mix of all commercially viable energy sources. We will attach high priority for maximizing deployment of energy sources, including biofuels, emerging fuels such as hydrogen, available within the country.”

H.E Mr Dharmendra Pradhan
Minister of Petroleum and Natural Gas and Minister of Steel

INTRODUCTION TO HYDROGEN ECONOMY

New Delhi Dialogue



A deep transformation in the energy sector is essential to achieve the decarbonised energy world envisaged by the CoP-21 Paris agreement. In this context, power from renewables will become an important component for achieving a transition to cleaner forms of energy.

Hydrogen is emerging as one of the important spokes in the overall energy vector with various colours associated with the smallest molecule as a prominent net-zero solution for reducing carbon footprints. Hydrogen can also enhance energy security by diversifying the fuel mix and providing flexibility to balance grids. Green hydrogen is gaining unprecedented political and business momentum with number of policies and projects expanding rapidly around the world. Many projects globally are under development to scale-up production of hydrogen and create infrastructure for storage, transportation and its usage. A convergence in efforts is critical towards ensuring significant share of hydrogen in the global energy system in the coming decades.

H.E Mr Dharmendra Pradhan, Minister of Petroleum and Natural Gas and Minister of Steel, inaugurates H-CNG plant and 50 H-CNG city buses in New Delhi on 20th October 2020.



OBJECTIVES OF THE ROUNDTABLE



- The goal of this roundtable is to estimate the progress of hydrogen ecosystems.
- Across continents and contribute to creating synchrony among the global think tanks, the industry and governments to join forces for developing innovative and sustainable technologies at attractive costs.
- Assessing the potential of green hydrogen and its relevance in national energy Transitions.
- Sharing learnings of creating a hydrogen ecosystem and best practices.
- Exchanging views on the different technologies and potential for new projects, and thereby scope for international collaboration.

AGENDA AND SCHEDULE – 15TH APRIL



| IST | Agenda |
|---------------|---|
| 14:00 – 14:10 | Welcome Address <ul style="list-style-type: none"> • Ms. Shreerupa Mitra, Executive Director, The Energy Forum (TEF) |
| 14:10 – 14:50 | Ministerial Session Moderator: Ms. Shreerupa Mitra , Executive Director, The Energy Forum (TEF) <ul style="list-style-type: none"> • H.E. Mr. Dharmendra Pradhan, Minister for Petroleum and Natural Gas & Minister for Steel, India • H.E. Dr. Sultan Al Jaber, Minister of Industry and Advanced Technology, UAE • H.E. Mr. Angus Taylor, Minister for Energy and Emissions Reduction, Australia • H.E. Mr. Dan Jorgensen, Minister for Climate, Energy and Utilities, Denmark • H.E. Mr. David M. Turk, Deputy Secretary of Energy, United States |
| 14:50 – 15:50 | Session 1 Continental Perspective (Japan, South Korea, Singapore, Australia and India) Emerging Hydrogen Ecosystem Moderator: Dr. SSV Ramakumar , Director (R&D), Indian Oil , India <ul style="list-style-type: none"> • Mr. James Hetherington, Director, Hydrogen Strategy Team, International Climate Change and Energy Innovation Division, Department of Industry, Science, Energy and Resources (DISER), Australia • Mr. Eiji Ohira, Director General for Advanced Battery and Hydrogen Technology Department, NEDO, Japan • Dr. R K Malhotra, DG, FIPI and President, Hydrogen Association of India, India • Prof. Chennupati Jagadish, Electronic Materials Engineering, Australian National University, Australia |

AGENDA AND SCHEDULE – 15TH APRIL



| IST | Agenda |
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| 15:50 –16:00 | Session Break |
| 16:00 –16:45 | <p>Session 2A Continental Perspective (France, Denmark, Russia, UAE and Norway) Emerging Hydrogen Ecosystem - “Policies and Roadmaps” Moderator: Mr. Sambit Mohanty, Editorial Lead, Asia-Pacific, S&P Global Platts</p> <ul style="list-style-type: none"> • Mr. Nigel Holmes, CEO, Scottish Hydrogen & Fuel Cell Association, UK • Dr. Dimitrios Dimitriou, Hydrogen Business Development Manager, ADNOC, UAE • Mr. Han Feenstra, Hydrogen Specialist in the Climate and Energy Department, Ministry of Economic Affairs and Climate Policy, Netherlands • Mr. Mohamed Abdelqader El Ramahi, Director, Asset Management & Technical Services, Clean Energy, Masdar • Prof. Yuri Dobrovolsky, Head of NTI Hydrogen Centre, Moscow, Russia • Prof. Alexei Levchenko, Head of R&D, NTI Hydrogen Center, Russia |
| 16:45 –17:30 | <p>Session 2B Continental Perspective (France, Denmark, Russia, UAE and Norway) Emerging Hydrogen Ecosystem - “Mapping Supply and Demand” Moderator: Mr. Anish De, KPMG</p> <ul style="list-style-type: none"> • Mr. Sturle Harald Pedersen, Greenstat Hydrogen, Norway • Mr. David Hart, E4tech (UK) Ltd, UK • Prof. Dr. PV Aravind, Professor of the Chair of Energy Conversion, University of Groningen, Netherlands • Prof. Dr. Andreas Zuttel, Director, LMER, EPFL, Switzerland • Ms. Irina Gayda, Director, Energy Centre, Moscow School of Management SKOLKOVO, Russia • Mr. Yuriy Melnikov, Senior Analyst, Energy Sector, Moscow School of Management SKOLKOVO, Russia |

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| 17:30 – 18:30 | Session 3 India Perspective in Hydrogen Economy Moderator: Mr. Debasish Mishra , Partner, Deloitte Touche Tohmatsu India LLP Keynote Speaker: Mr. Indu Shekhar Chaturvedi , Secretary, Ministry of New & Renewable Energy (MNRE) <ul style="list-style-type: none"> • Dr. SSV Ramakumar, Director (R&D), Indian Oil, India • Prof. S. Dasappa, Indian Institute of Science Bangalore • Dr. Renu Swarup, Secretary, Department of Biotechnology (DBT) • Mr. P Harish, Additional Secretary (ER), Ministry of External Affairs (MEA) • Mr. Sunil Kumar, Joint Secretary (Refinery Division), Ministry of Petroleum and Natural Gas (MoPNG) |
| 18:30 – 18:45 | Session Break |
| 18:45 – 19:45 | Session 4 Continental Perspective (US, Canada and Brazil) Emerging Hydrogen Ecosystem - “Policies and Roadmaps” & “Mapping Supply and Demand” Moderator: Mr. Satya S. Tripathi , Secretary – General, Global Alliance for a Sustainable Planet <ul style="list-style-type: none"> • Dr. Sunita Satyapal, Director, Energy Efficiency and Renewable Energy, Department of Energy, USA • Mr. Mark Kirby, President & CEO, Canadian Hydrogen & Fuel Cell Association • Mr. Ross Bailey, Managing Director, Greenlight Innovation, Canada • Mr. Steven Kellogg, Advisor, ExxonMobil, USA • Mr. Tom Joseph, CEO, Bethlehem Hydrogen, USA • Mr. Giovanni Machado, Director for Energy, Ministry of Mines and Energy, Brazil |
| 19:45 – 20:00 | Closing remarks <ul style="list-style-type: none"> • Mr. Tarun Kapoor, Secretary, Ministry of Petroleum and Natural Gas |

CONTACT DETAILS

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