



India Energy Forum



India's Energy Future in a World of Change

26-28 October 2020

India Energy Forum in Review



Inaugural Address



Hon. Shri Narendra Modi, Prime Minister, India

Inaugural Address and Ministerial Dialogue



H.R.H. Prince Abdulaziz bin Salman, Minister of Energy, Kingdom of Saudi Arabia

Inaugural Address and Closing Remarks



Hon. Shri Dharmendra Pradhan, Minister of Petroleum & Natural Gas and Minister of Steel, Government of India

Inaugural Address and Ministerial Dialogue



Hon. Dan Brouillette, Secretary of Energy, United States Department of Energy

Indian Ministerial Dialogue



Hon. Smt. Nirmala Sitharaman, Minister of Finance and Minister of Corporate Affairs, Government of India

Indian Ministerial Dialogue



Hon. Shri Piyush Goyal, Minister of Railways and Minister of Commerce & Industry, Government of India

Ministerial Dialogue



H.E. Mohammad Sanusi Barkindo, Secretary General, OPEC

New Map of Energy for India



Dr. Rajiv Kumar, Vice Chairman, NITI Aayog, Government of India

The Hydrogen Economy and Closing Remarks



Shri Tarun Kapoor, Secretary, Ministry of Petroleum & Natural Gas, Government of India

Leadership Dialogue



Tengku Muhammad Taufik, President & Group Chief Executive, PETRONAS

Leadership Dialogue



Bernard Looney, Group Chief Executive, bp p.l.c.

Leadership Dialogue



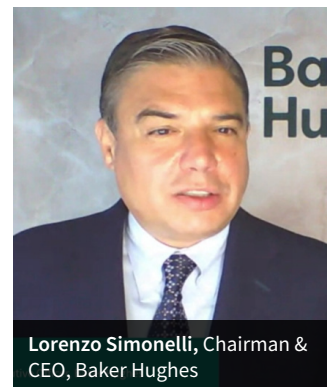
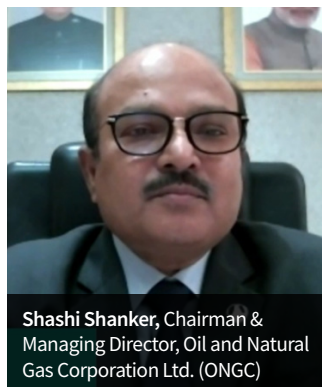
Patrick Pouyanné, Chairman & Chief Executive Officer, TOTAL S.A.

Future of Refining & Petrochemicals in a World of Surplus

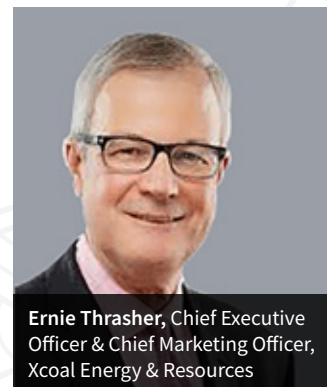


S.M. Vaidya, Chairman, Indian Oil Corporation Ltd.

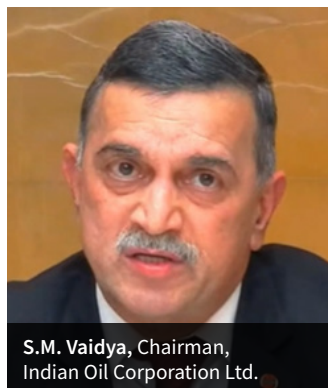
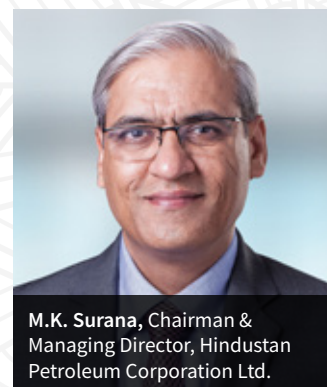
Technologies to Optimize Costs, Recovery & Emissions in the Upstream



Growing Share of Gas in India's Energy Mix: What is realistic?



Future of Refining & Petrochemicals in a World of Surplus



During this time of sweeping change from the COVID-19 pandemic, economic transformation, and the global energy transition, IHS Markit was pleased to host the fourth India Energy Forum by CERAWeek, held under the patronage of Shri Dharmendra Pradhan, Minister of Petroleum & Natural Gas and Minister of Steel, Government of India. The Forum was the first ever all-virtual CERAWeek conference. The three-day event focused on India's economic recovery, its energy future amid the global transition to a lower carbon system, and the major reforms underway by the government of Shri Narendra Modi, Honorable Prime Minister of India, to attract investment and increase the competitiveness of India's economy.

Prime Minister Modi headlined the opening day of the Forum with an inaugural address. He highlighted the government's seven-pronged energy strategy that aims to decarbonize and diversify India's energy mix while alleviating energy poverty and promoting innovation across the energy ecosystem.

The Forum convened an international community of 5,000+ delegates from 45 countries for dialogue and exchanges of ideas. Participants included 75 Indian federal government ministers, regulatory heads, chief executives of Indian and international energy companies, and senior officials and thought leaders from across the technology, finance, automotive, petrochemical, environmental, and civil society spectrum. The discussions provided key insights into the energy future and India's role in a world of transition.

Highlights from the 2020 India Energy Forum by CERAWeek included:

- India Ministerial Dialogues with Hon. Smt. Nirmala Sitharaman, Minister of Finance and Minister of Corporate Affairs, and Hon. Shri Piyush Goyal, Minister of Railways and Minister of Commerce & Industry
- Ministerial Dialogues with H.R.H. Prince Abdulaziz bin Salman, Minister of Energy, Kingdom of Saudi Arabia, and Hon. Dan Brouillette, U.S. Secretary of Energy
- CEO Dialogues with Bernard Looney (bp p.l.c.), Patrick Pouyanné (TOTAL S.A.), Meg Gentle (Tellurian Inc.), and Tengku Muhammad Taufik (PETRONAS)
- Dialogue with H.E. Mohammad Barkindo, Secretary General, OPEC
- India Leadership Dialogue with Amitabh Kant, Chief Executive, National Institution for Transforming India (NITI Aayog)
- India launch of Dan Yergin's new book *The New Map: Energy, Climate and the Clash of Nations* with Hon. Minister Shri Dharmendra Pradhan

India is a hotbed of innovation and technology and the Innovation Agora featured exciting dialogues on mobility, hydrogen energy, and India's ecosystem for start-up enterprises that are transforming the energy landscape.

Videos of select sessions are available at <https://ondemand.ceraweek.com/india2020>.

We wish to acknowledge and extend special thanks to the Ministry of Petroleum & Natural Gas, Government of India and our Foundational Sponsors for their support and leadership: Federation of Indian Petroleum Industry, Bharat Petroleum Corporation Ltd., bp p.l.c., Engineers India Ltd., GAIL India Ltd., Hindustan Petroleum Corporation Ltd., Indian Oil Corporation Ltd., Nayara Energy Ltd., Oil and Natural Gas Corporation Ltd., Oil India Ltd., Petronet LNG Ltd., Reliance Industries Ltd., Shell India Markets Pvt. Ltd., and Vedanta Ltd. - Cairn Oil & Gas.

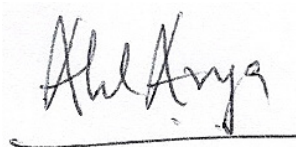
We also extend our thanks to Hon. Minister Shri Dharmendra Pradhan, our speakers, and Forum participants who contributed to the success of this gathering through their active engagement.

Sincerely,



Daniel Yergin

Co-Chairman, CERAWeek
Vice Chairman, IHS Markit



Atul Arya

Co-Chairman, India Energy Forum; Senior
Vice President & Chief Energy Strategist,
IHS Markit



James Rosenfield

Co-Chairman, CERAWeek
Senior Vice President, IHS Markit



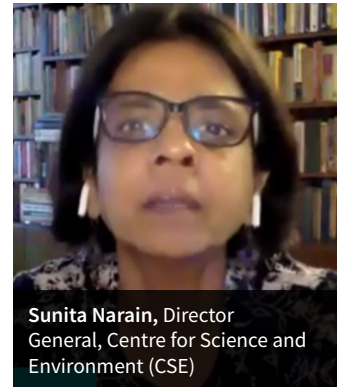
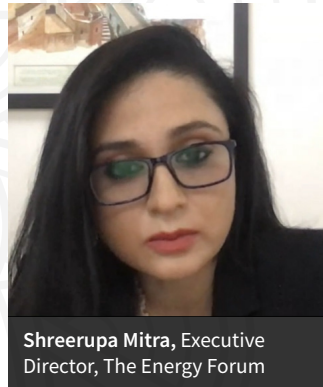
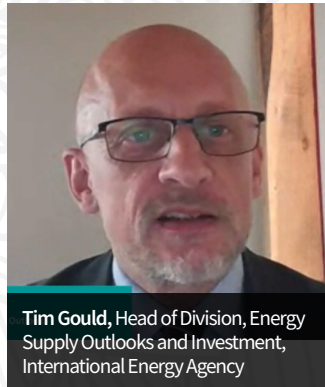
The India Energy Forum by CERAWEEK
thanks the Ministry of Petroleum & Natural
Gas, Government of India, for its support.



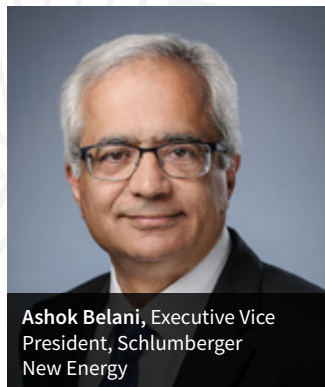
सत्यमेव जयते

Ministry of Petroleum & Natural Gas
Government of India

More Energy, Fewer Emissions: The dual challenge

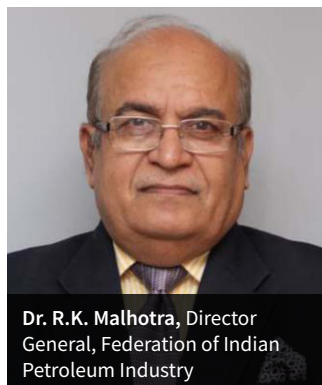


Scaling Energy Choices: From pilot to commerciality

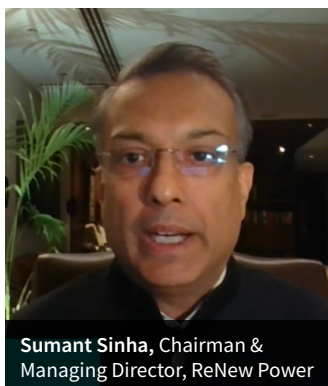
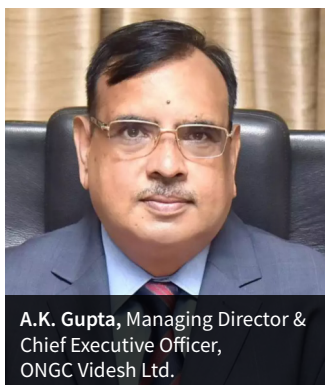


Indian Markets & Regulatory Dialogue

Chair: Gauri Jauhar, Executive Director, Energy Transitions & Clean Tech Consulting, IHS Markit



India Leadership Dialogue



Closing Remarks



Innovation Agora

Mobility of the Future: A turning point for India



Tom De Vleeschauwer,
Vice President, Automotive,
IHS Markit



Pankaj Jhunja, Head of Mobility
Innovation Hub, Tata Motors



Deepesh Rathore, Director,
OLA Electric

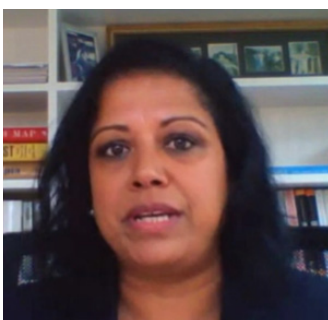


Mahesh Aggarwal, Assistant Vice
President, HGID (Honda R&D
Automobile India)

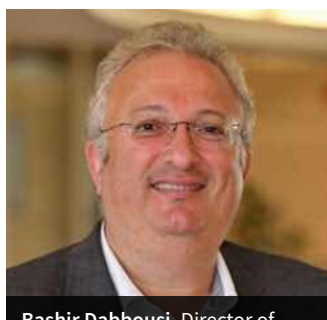


Anuj Jain, Vice President,
Automotive Strategy,
Bosch Mobility Solutions

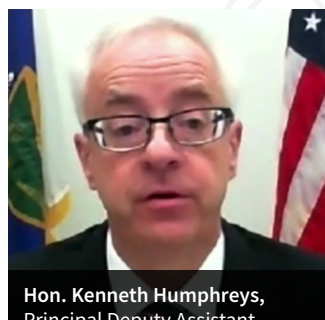
The Hydrogen Economy



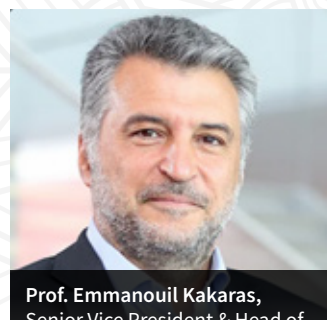
Shankari Srinivasan, Vice
President, Energy, IHS Markit



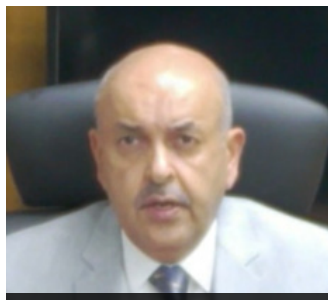
Bashir Dabbousi, Director of
Technology Strategy & Planning,
Saudi Aramco



Hon. Kenneth Humphreys,
Principal Deputy Assistant
Secretary for Fossil Energy,
U.S. Department of Energy



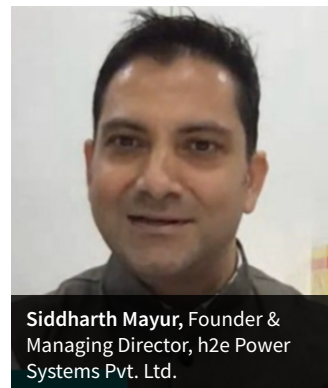
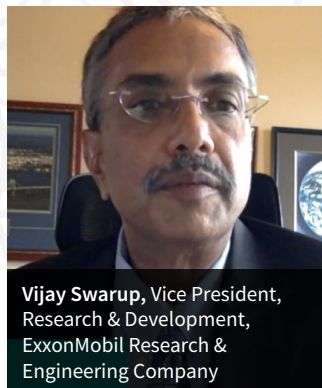
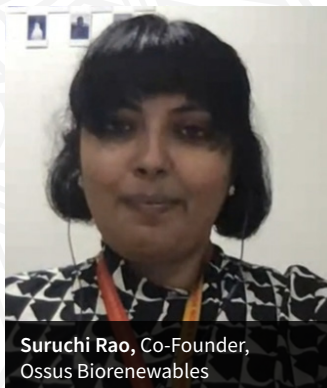
Prof. Emmanouil Kakaras,
Senior Vice President & Head of
New Business, Mitsubishi Power
Europe GmbH



Shri Tarun Kapoor, Secretary,
Ministry of Petroleum & Natural
Gas, Government of India

Innovation Agora

Indian Energy Innovation



Plenaries

Energy & Climate Change: What is ahead?

Multiple Dimensions of Energy Transition: India & the world

IHS Markit Briefings

Economy & Geopolitics

Global Gas & LNG

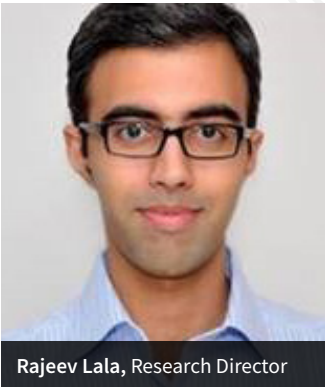
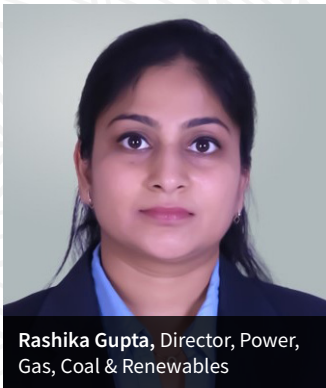
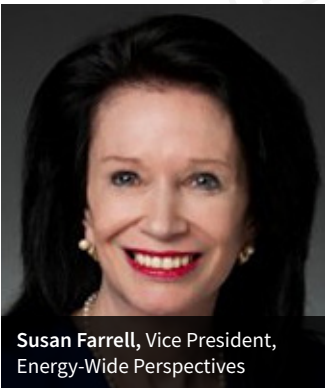
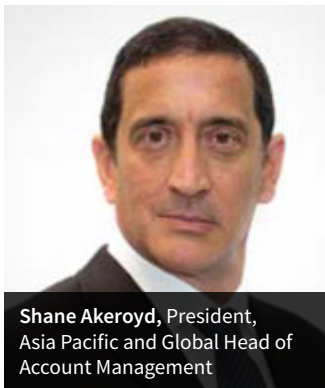
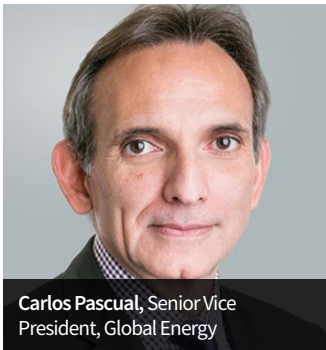
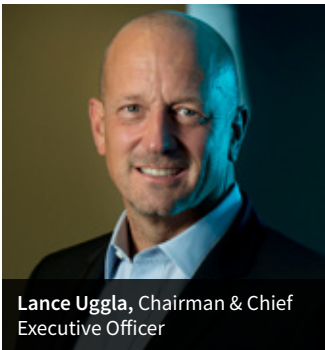
India's Climate & Energy Transition

Refining & Petrochemicals

Upstream Competing in the Energy Transition

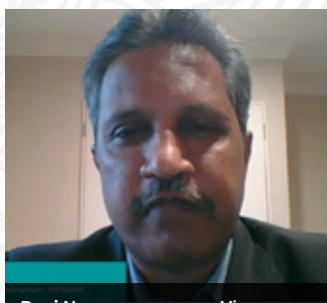
Zero Carbon Supply Chains

IHS Markit Experts





Paul Markwell, Vice President,
Global Upstream Oil & Gas Insight



Ravi Narayanaswamy, Vice
President, Oil Markets, Midstream
& Downstream, IHS Markit



Dan Pratt, Executive Director,
Upstream



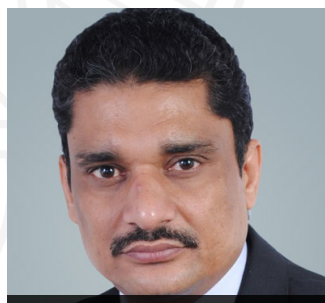
Keerti Rajan, Research and
Analysis Director



Catherine Robinson, Executive
Director, Global Gas



Nirmal Shani, Country Manager
& Executive Director - South Asia,
CERAWEEK - South & Southeast Asia



Sanjay Sharma, Vice President,
Chemical Consulting



Shankari Srinivasan,
Vice President, Energy



Michael Stoppard, Chief
Strategist, Global Gas



Gautam Sudhakar, Senior
Director, Global LNG



Lyn Tattum, Vice President,
Global Chemical Market
Information



Sam Wilkinson, Director, Solar &
Energy Storage Research



Edurne Zoco, Director, Solar
& Energy Storage, Energy
Technology

India Energy Forum by the Numbers

5,000
Delegates

400
Organizations

75
Speakers

30
Sessions

45
Countries

5
Private Sessions

USTDA Announces Virtual Workshop Series: Mitigating COVID-19 Impact on India's Oil and Gas Sector

United States Trade and Development Agency (USTDA) announced the launch of the virtual capacity building and training series for India's oil and gas ecosystem to be conducted by IHS Markit experts. The goal of the Virtual Workshop series is to provide an opportunity for the U.S. and India hydrocarbon firms that are engaged in the Indian oil and gas market to establish facts, forecasts, and scenarios of the nature of the COVID-19 impacts on the global oil and gas business, and aid in the capacity building of the Indian oil and gas sector. Through the workshops, they will work to develop a platform for U.S. and India hydrocarbon industries to evaluate new areas of investment and cooperation, and to discuss and implement best practices in the oil and gas value chain.

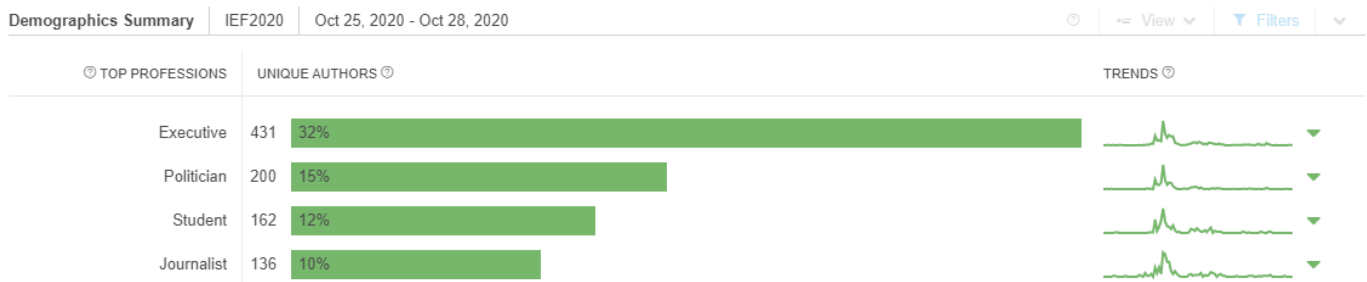


India Energy Forum 2020 Social Media Metrics

Total mentions: 29,144



Total authors: 10,605



Total topics



Reach of conversation by day





Top performing tweet

Sent from Prime Minister Modi's verified account sharing the live stream of the inaugural address at the India Energy Forum. This tweet has been **retweeted 3.5k+ times with a reach of 1.8 million.**

Official event hashtags

#IndiaEnergyForum – 10.1k tweets and retweets, 408 million impressions

#CERAWEEK – 5.1k tweets and retweets, 125 million impressions

#PMatCERAWEEK – 12.9k tweets and retweets, 452 million impressions

Most mentioned tweeters

#1 @narendramodi #4 @dpradhanbjp
#2 @bjp4india #5 @ceraweek
#3 @petroleummin

Special Events

Industry Roundtable on Proposed Gas-Electric Coordination Recommendations under the Flexible Resources Initiative of the U.S.-India Clean Energy Finance Task Force

The U.S. Department of State's Bureau of Energy Resources Assistant Secretary Francis R. Fannon, U.S. Federal Energy Regulatory Commission Chairman Neil Chatterjee, and Indian Petroleum and Natural Gas Regulatory Board Chairman Dinesh Sarraf co-hosted this industry roundtable as India is contemplating pipeline access code reforms, based on a study by IHS Markit and the Lawrence Berkeley National Laboratory. Electricity system and pipeline operators, gas-fired generation operators, oil and gas majors, along with pipeline and renewable energy developers, will offer feedback on the draft proposals from their diverse perspectives in the gas-electric value chain.

Indian Oil Corporation Ltd., Case Study: Leveraging AI & NLP to accelerate R&D, problem solving & innovation in India's Energy sector

Digital transformation technologies are sweeping across every industry, with some extracting higher value than the others. Current developments in AI and Natural Language Processing (NLP) are one such area that will empower the early adopters in energy to a quantum jump in engineering and research productivity. In this session, participants explored the recent success of leveraging IHS Markit's patented Cognitive AI and NLP technologies at Indian Oil Corporation R&D, from the perspective of India's energy strategy.

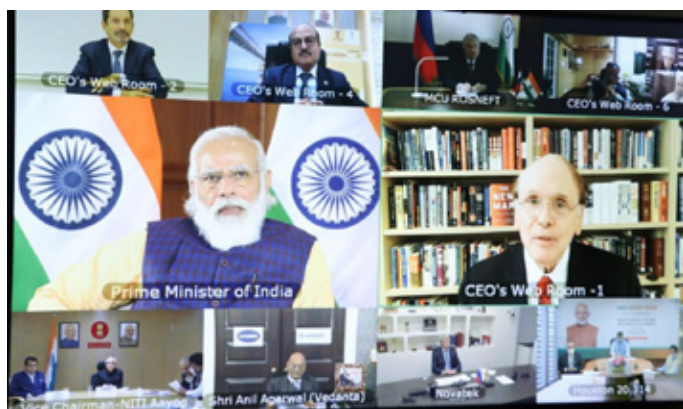
The New Map: Energy, Climate and the Clash of Nations and India's Energy Transition — A Private Conversation with Dr. Daniel Yergin

The New Map Contest Winner Roundtable—Ten randomly selected India Energy Forum delegates joined an informal conversation with Dr. Yergin to discuss his recently published book *The New Map: Energy, Climate and the Clash of Nations*.

International Oil & Gas CEO Roundtable

Held alongside CERAWEEK India Energy Forum, the 5th annual private International Oil & Gas CEO Roundtable by NITI Aayog and the Indian Ministry of Petroleum and Natural Gas featured Prime Minister Shri Narendra Modi interacting online with about 40 CEOs of leading oil and gas companies and 28 government leaders.

During the roundtable, Prime Minister Modi said that the core of the government's policy is to provide equitable access of clean, affordable, and sustainable energy to all Indians, for which the country has adopted an integrated approach.



From left: *Top row*—**Olivier Le Peuch**, CEO, Schlumberger; **Shashi Shanker**, Chairman & Managing Director, Oil & Natural Gas Corporation Ltd.; **Igor Sechin**, CEO, Chairman of Management Board & Deputy Chairman of Board of Directors, Rosneft. *Middle row*—**Hon. Shri Narendra Modi**, Prime Minister of India and **Daniel Yergin**, Vice Chairman, IHS Markit. *Bottom row*—**Amitabh Kant**, CEO, NITI Aayog and **Dr. Rajiv Kumar**, Vice Chairman, NITI Aayog; **Anil Agarwal**, Founder & Chairman, Vedanta Resources Ltd.; **Leonid V. Mikhelson**, Chairman of the Management Board, PAO Novatek; and **Tarun Kapoor** (left), Secretary, Ministry of Petroleum & Natural Gas, Government of India, and **Hon. Shri Dharmendra Pradhan** (center), Minister of Petroleum & Natural Gas and Minister of Steel, Government of India.

Attendees included ministers and executives from governments, leading oil and gas companies, and international organizations.

Governments

- India
- UAE
- Qatar

Oil and gas companies

- Abu Dhabi National Oil Company (ADNOC)
- Air Products & Chemicals
- Baker Hughes
- Bharat Petroleum Corporation Limited
- bp p.l.c.
- Emerson
- Enel Green Power
- Equinor ASA
- ExxonMobil
- Freeport LNG
- GAIL India Limited
- Hindustan Petroleum Corporation Limited
- Indian Oil Corporation Limited
- JERA Co. Inc.
- LyondellBasell Industries
- Maire Tecnimont
- Mubadala Investment Company
- Novatek
- Oil & Gas Climate Initiatives
- Oil & Natural Gas Corporation Limited
- Oil India Limited
- PETRONAS
- Petronet LNG Limited
- Qatar Petroleum
- Reliance Industries Limited
- Rosneft
- Royal Dutch Shell
- Schlumberger Limited
- Tellurian
- Total S.A.
- Vedanta Resources
- Wood Mackenzie
- Xcoal Energy & Resources LLC / XLNG Energy & Resources LLC

International organizations

- Gas Exporting Countries Forum (GECF)
- International Energy Agency (IEA)
- Organization of the Petroleum Exporting Countries (OPEC)

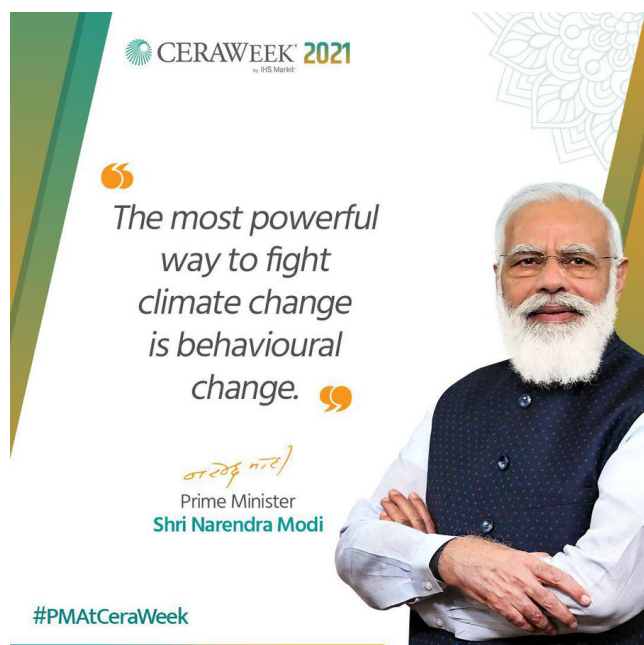
Foundational Sponsors



Global Energy & Environment Leadership Award Presented to Shri Narendra Modi, Prime Minister of India

CERAWEEK by IHS Markit was honored to present **Prime Minister Shri Narendra Modi of India** the *CERAWEEK Global Energy & Environment Leadership Award in recognition of his commitment to sustainability in energy and the environment*, in a virtual ceremony on the final day of CERAWEEK 2021.

Presented by Daniel Yergin, Vice Chairman of IHS Markit and Chairman of CERAWEEK, the event was televised live across India, with many viewers tuning in from hundreds of office campuses and fuel retail outlets across the country, and an additional 300,000+ watching the live-stream via the Hon'ble Prime Minister's Twitter and Facebook channels.



Source: Indian Oil Corp Ltd, Twitter, March 5, 2021



Source: Bharat Petroleum, Twitter, March 5, 2021



Source: BPCL Retail Surat, Twitter, March 5, 2021



Source: IOCL Delhi DO, Twitter, March 5, 2021

THE ESSENTIAL GUIDE TO THE CHANGES AHEAD IN THE WORLD OF ENERGY

“ENERGY PROFESSIONALS ARE NAVIGATING THE PROFOUND CHALLENGES FACING THE OIL, GAS, AND ELECTRIC POWER INDUSTRIES. There is a critical need to make sense of the current turmoil, energy transition, the impact of climate policy, new strategies of energy companies—and the opportunities.”

—DANIEL YERGIN, Pulitzer Prize Winner & Vice Chairman of IHS Markit

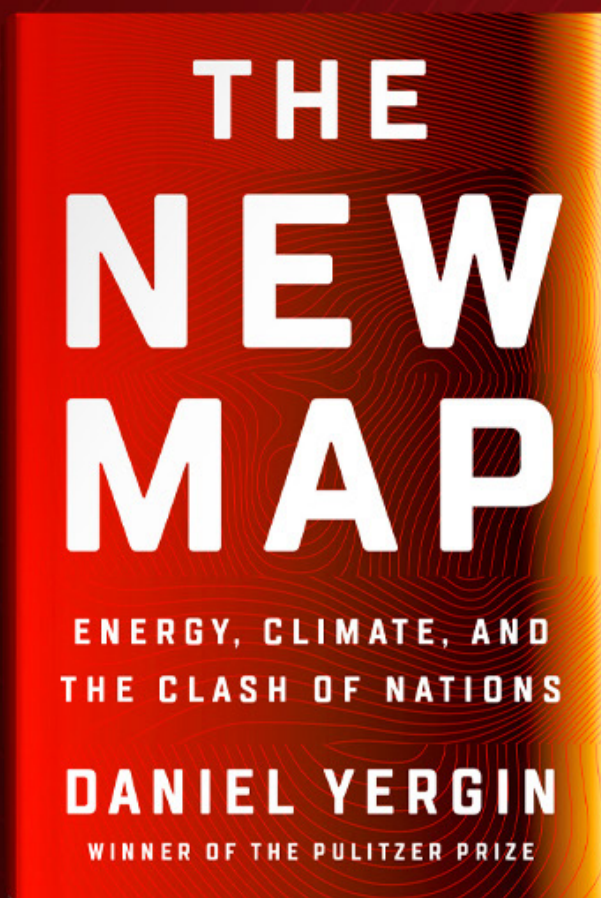


“[A] wonderful book on the TRANSFORMATION OF THE GLOBAL MAP OF POWER AND WEALTH.” —*The Sunday Times* (London)

**“DANIEL YERGIN HAS TURNED HIS CONSIDERABLE TALENTS to explaining how the world continues to be shaped by oil.”
—*The Wall Street Journal***

**“DANIEL YERGIN RIDES TO THE RESCUE . . . (ON) THE LIFEBLOOD OF CIVILIZATION.”
—*USA Today***

“A PAGE TURNER . . . ANOTHER WINNER FROM A MASTER.” —*Kirkus Reviews*



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India Energy Forum



20–22 October 2021 | New Delhi /Virtual



7–11 March 2022 | Houston/Virtual

Participation, partnership & special programs:

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nirmal.shani@ihsmarkit.com

Martha O'Connor: +1 617 413 2049
martha.oconnor@ihsmarkit.com



About IHS Markit

IHS Markit (NYSE: INFO) is a world leader in critical information, analytics and expertise to forge solutions for the major industries and markets that drive economies worldwide. The company delivers next-generation information, analytics and solutions to customers in business, finance and government, improving their operational efficiency and providing deep insights that lead to well-informed, confident decisions. IHS Markit has more than 50,000 business and government customers, including 80 percent of the Fortune Global 500 and the world's leading financial institutions. Headquartered in London, IHS Markit is committed to sustainable, profitable growth.

ihsmarkit.com

About CERAWeek

CERAWeek by IHS Markit is the premier annual international gathering of energy industry leaders, experts, government officials and policymakers, as well as top executives from the technology and financial sectors. 2021 marks the 40th occurrence of this influential event, ranked among the top five corporate leader conferences in the world. The next conference will be held virtually 1-5 March 2021.

ceraweek.com