

A Report on

# Directors' Dialogue Series

DDS 2<sup>nd</sup> Edition | Focus: Power and New & Renewable Energy

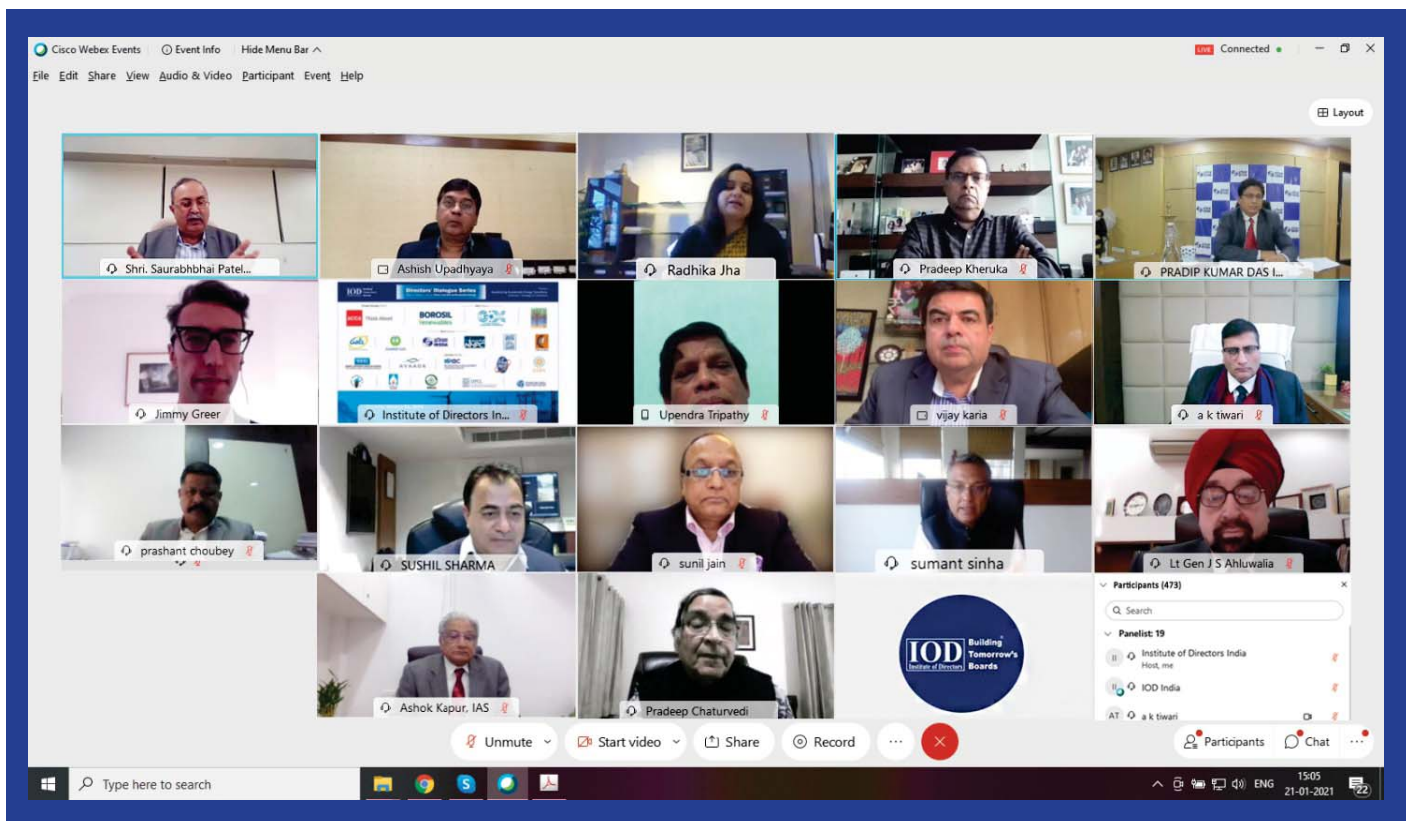
Thursday, January 21, 2021

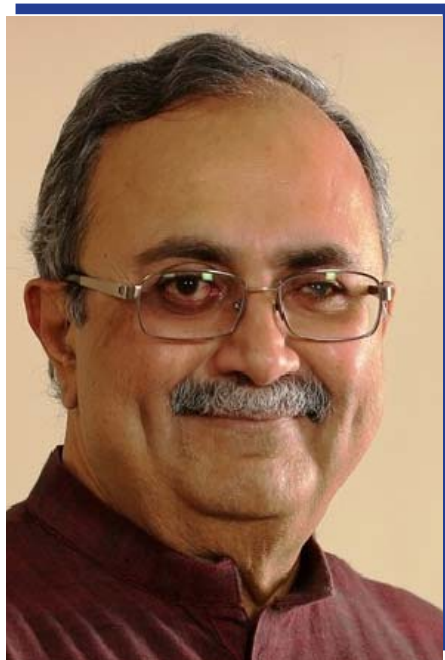
Theme: Accelerating Sustainable Energy Transitions: *Directors' Strategy & Directions*

The Institute of Directors (IOD) organised the Second Virtual Edition of the 'Directors' Dialogue Series' on January 21, 2021 with a special focus on 'Power and New & Renewable Energy'. The theme for this edition was 'Accelerating Sustainable Energy Transitions: Directors Strategy & Directions'. It was widely supported. The Principal Strategic Partner for the event was ACCA (the Association of Chartered Certified Accountants) - the global professional accounting body for Chartered Certified Accountants,

headquartered in the UK. Gold Partners for the event were Borosil Renewables Limited, Gujarat Urja Vikas Nigam Limited (GUVNL), and Gujarat Industrial Development Corporation (GIDC). Silver Partners for the event were Damodar Valley Corporation (DVC), Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Limited (MPMKVCL), Indian Renewable Energy Development Agency Limited (IREDA), NHPC Limited, Gujarat Gas Limited (GGL), and Gujarat Alkalies and Chemicals Ltd. There were a large number of other supporters.

Associate Partners for the event were Energy Efficiency Services Limited (EESL), AVAADA Energy of the AVAADA Group, PFC Limited (Power Finance Corporation Ltd.), SJVN Limited (Satluj Jal Vidyut Nigam Limited), MPIDC (MP Industrial Development Corporation Limited), Gujarat Energy Development Agency (GEDA), Gujarat Industries Power Company Limited (GIPCL), THDC India Limited (formerly Tehri Hydro Development Corporation Limited), Uttarakhand Power Corporation Limited (UPCL), and Karnataka Renewable





**Mr. Saurabhbhai Patel**  
Hon'ble Minister of Energy  
Govt. of Gujarat State, India



**Mr. Ashish Upadhyaya, IAS**  
Additional Secretary & Financial  
Adviser, Ministry of Power, Govt. of India



**Mrs. Radhika Jha, IAS**  
Secretary, Department of Energy & Renewable Energy,  
and Secretary to Hon'ble Chief Minister  
Government of Uttarakhand State, India



**Dr. Upendra Tripathy, IAS**  
Director General, International Solar Alliance (ISA)  
Former Secretary, Ministry of New and Renewable  
Energy, India

### **Energy Development Limited (KREDL).**

The event was attended by senior officials from the Government of India, and the State Govts. of Gujarat and Uttarakhand. It was addressed by well-known board leaders of some of the leading organisations from the Power and New & Renewable Energy sectors in the country. The event was attended by over 500 participants, business leaders, corporate board members, directors, CEOs, industry experts, policy-makers, environmentalists, innovators, energy specialists and related domain specialists from across the country and globe, including Turkey, Finland, UAE, Qatar, Hong Kong, Canada, Singapore, Sri Lanka, UK, Australia etc.

The event was hosted online via IOD's licensed Cisco Webex account, and also streamed live on Facebook. All the participants reached a consensus that it is the burning issue of the day.

A large number of private and public sector institutions participated, including both Central and State governments as represented by:

- i. **Mr. Saurabhbhai Patel**  
Hon'ble Minister of Energy  
Govt. of Gujarat State, India
- ii. **Mr. Ashish Upadhyaya, IAS**  
Additional Secretary & Financial  
Adviser, Ministry of Power, Govt. of  
India
- iii. **Mrs. Radhika Jha, IAS**  
Secretary, Department of Energy  
& Renewable Energy, and  
Secretary to Hon'ble Chief Minister  
Government of Uttarakhand State,  
India
- iv. **Dr. Upendra Tripathy, IAS**  
Director General, International  
Solar Alliance (ISA)  
Former Secretary, Ministry of New  
and Renewable Energy, India

The **Mr. Ashok Kapur, IAS (Retd.)** Director General, Institute of Directors, in his '**Opening Remarks**', commenced the day's proceedings by quoting Mr. Emmanuel Macron, President of France

- "There is no climate crisis, there is a climate emergency." Mr. António Guterres, Secretary-General of the United Nations was also quoted- "Our planet is under attack. It is seriously wounded." He shared how IOD is conscious of the fact that climate change requires concrete action. On this note, he set the tone for the webinar, pressing for the need to move towards carbon-neutrality, zero emissions and renewable energy.

**Lt. Gen. J. S. Ahluwalia, PVSM (Retd.)**, President, Institute of Directors, India, in his 'Welcome Address' introduced the concept and motivation behind this series of webinars, and threw light on the day's theme to the participating business participants, IOD members, global associates, speakers and guests. He added: "India's renewable energy sector is the 4th most attractive renewables market in the world. India is home to 18% of the world's population, but uses only 6% of world's primary energy." He accepted that issues in the Energy sector are complex and multi-dimensional. The world's energy



**Lt. Gen. J. S. Ahluwalia, PVSM (Retd.)**  
President  
Institute of Directors, India

resources are finite; oil is expected to run out in about 40 years, natural gas in 60 years, and coal in about 200 years. On the Indian front, we have to move from oil, gas and coal-based energy, to nuclear and renewable base energy sources. India's thorium-based nuclear power programme can be one of our priorities. Every organization must prioritise energy use efficiency, as they have the potential to save 10% to 30% of energy used. Renewable energy sector has matured and there is a huge market potential in the sector. Renewable energy is environmentally sustainable, and provides energy access under 'decentralized mode'. On solar energy, he stated the future potential of solar energy is infinite. It can provide electricity needs of over 360 million people of India, who are currently living off the grid. Solar power tariffs have hit a record low of Rs. 2.49 per KWH, which is below the cost of conventional power. He also shared that the Govt. of India has set up an ambitious target of 175 GW of renewable energy by 2022, which they are set to exceed. Our solar parks have attracted good interest from global investors. He hoped that the day's proceedings would help chart winning strategies and a roadmap for India' energy security.

The 'Keynote Address' was delivered by:

**Mr. Saurabhbhai Patel**

Minister of Energy  
Government of Gujarat, India

**Mr. Patel** said that the energy sector in India is changing dynamically, he said. He pinned the success of the energy sector in any State on the political will of the ruling government. Gujarat's power and energy sector, he recalled, had come a long way in the last two decades. Under the leadership of Indian Prime Minister, Mr. Narendra Modi, as Chief Minister of Gujarat, the power and energy sector underwent sweeping changes, and progressive reforms. This resulted in the four State discoms turn profitable and the self-sustainable. These have become the top four

discoms in the country, as rated by the Central Government.

From 175 GW by 2022, the Central Government is aiming at 450 GW by 2030. Today 'renewable energy' is the attraction, rather than coal energy. In another two years, India will achieve 50% renewable energy in its total energy mix. Multiple competitive strategies are being devised by the government to accomplish this. He shared how the state of Gujarat was very aggressive with respect to small solar capacity projects (500KW to 4MW). He also shared, the new captive policy of the State, which will completely change the generation and usage of power. He was referring to the 'Gujarat Solar Power Policy, 2021', which incentivizes residential, commercial, and industrial rooftop solar developers. It empowers anyone to generate, use and sell the surplus power.

The foundation stone for the largest solar renewable park in the world on 72,600 hectares of unused land in Kutch, close to the international border was recently laid by the Indian Prime Minister Mr. Modi. It has a target to generate 30,000 MW, the largest in the world. He also laid the path for the future, the next ten years, where infrastructure development would be the focus, including transmission network and roads. Talking of the future, he said, "The day is not far when the generation of power would be at the user's level."

Currently, Gujarat is using 83 million units every day; with its complete transmission being done in the day. In the next 2 years, Rs. 3500 crores will be infused into infrastructure development for building transmission networks for farmers. Considering all the dynamic initiatives being taken up his government, he said he is confident, his State would rise to become the best in renewable energy, ahead of all other Indian states.

The 'Guest of Honour Address' was

delivered by:

**Mr. Ashish Upadhyaya, IAS**

Additional Secretary & Financial Adviser,  
Ministry of Power, Govt. of India

**Mr. Upadhyaya** traced the paradigm shift in the power sector to the turn of the century, when the issue of power supply to all Indian cities came into focus. In the first decades, India worked extensively on power generation. Now, India is at the stage of self-sufficiency, with a generation capacity of 375 GW. We have to increase efficiency and lower costs. The need to strengthen transmission systems from the site of energy generation to that of its demand, has been largely met. Congestions are no longer a concern. He raised concern on the 'distribution' of energy as it remains one of the biggest challenges for the country. During the pandemic, Govt. of India infused Rs. 90,000 crore to meet the challenge of energy flow, to ensure liquidity in the sector, which was later increased to Rs. 1, 27,000 crore. Rs. 50,000 crore have already been disbursed. He also raised concerns on the gap between energy tariffs & energy production costs, which affects the distribution sector. He further shared the trends in renewable energy:

- Prices of renewable energy have fallen to Rs. 1.99 per unit
- Power and Energy Purchase Agreements (PPAs) are under acute threat
- Introduction of PPE Energy
- Standard generation units which have gone to NCLT, have enabled reduction in energy prices
- Introduction of 'Consumer Charter' by Govt. of India on December 31, 2020 – will put focus on the consumer.

The '**Special Address**' was delivered by:

**Mrs. Radhika Jha, IAS**

Secretary, Department of Energy & Renewable Energy, and Secretary to Hon'ble Chief Minister, Government of

Uttarakhand State, India

**Mrs. Jha** declared: "The renewable energy sector will be the order of the day in future. We have to reinvent ourselves to focus on renewable energy including all its various forms, hydro, solar etc." She shared her Government's strategy to establish solar projects on wastelands or higher altitudes, in order to retain agricultural land. They have allocated 203 MW in hilly terrain, where agriculture or other industrial activity is not possible. She also shared a number of initiatives undertaken by her Government such as the 'CM Solar Swarojgar Yojna', launched during the pandemic, which is an apt example-approaching the energy sector with a view to create livelihood. Creating "Green Economies", as done in the State would be a 'win-win' for all. She suggested that the State's 'Pine Needle Policy' could be emulated by other hilly states as well. She urged the Union Government to constitute an inter-ministerial group including Power, Water Resources, Forest and some State Governments, along with private stakeholders and international experts, to look into understanding better ways of harnessing renewable energy and other environmental issues. She suggested another potentially game-changing initiative- 'Floating Solar', which would involve utilising water bodies for solar projects. The very successful roof-top scheme for solar plants could be made mandatory, she suggested, just as many Scandinavian countries have mandatory rules for green buildings.

A special '**Keynote Address**' was delivered by:

**Dr. Upendra Tripathy, IAS**

Director General, International Solar Alliance (ISA)  
Former Secretary, Ministry of New and Renewable Energy, India

**Dr. Tripathy** said that the agenda for accelerating energy transition is very meaningful, with the International Solar

Alliance (ISA) also playing a very important role in this. They promote various programmes to harness solar power potential, like solar pumps, mini grids, scaling rooftop, solar cooling, storage, park, etc. These are all aimed at enabling energy transitions and at making energy more sustainable and affordable, and working with corporate partners to create a market for the industry. "There are 750 million people without access to energy; 2 billion women without access to clean cooking mediums; 3 billion people without access to clean drinking water." He added that the World Bank has estimated that by the end of 2030, 700 million people will still be left without energy access. It is this gap that ISA aims to close, by working on universal access to energy, sustainability of energy sources, affordability and to match the energy supply & demand. He outlined two initiatives for the growth of the energy sector:

- i. To promote the concept of "**One World, One Sun, One Grid**", an initiative taken by India's Prime Minister, **Mr. Narendra Modi** for connecting solar energy supply across borders.
- ii. Introduction of Solar Banks

The '**Chairman's Address**' of the 'Directors' Dialogue Series' was delivered by:

**Mr. A. K. Tiwari**

Director (Finance)  
GAIL (India) Limited

**Mr. Tiwari** shared that the developed, developing and under-developed countries have different energy transitions. He affirmed that while the cost of energy transition will be high, the 'cost of inaction' to curb energy transition will be more than the 'cost of energy transition'. Long-term prosperity is based on decarbonisation. India has become a major player in the global LNG market. There are around 3 billion people who live on merely \$2 per day. He urged: "We have to come out of 'Energy



**Mr. A. K. Tiwari**  
Director (Finance)  
GAIL (India) Limited

Poverty'. 'Political will' and 'Reforms' will further enable India's energy transition journey”.

This was followed by a **Panel Discussion**, which was moderated by:

**Mr. Jimmy Greer**

Head – Sustainability  
ACCA (the Association of Chartered Certified Accountants), UK

**Mr. Greer** shared that at ACCA, they would like to be a part of the energy transition and sustainability transformation. Their members are committed to working with companies and organisations to unlock the potential in energy projects and aid the flow of capital to enable energy transition. At ACCA, they have a strong global commitment towards SDGs, for achieving our climate goals. USD 500 billion has gone into renewable energy, and this figure is only set to increase. India will be playing a huge role in this, as exhibited by the Indian PM, in his commitment to UN SDG #7.

**Other Distinguished Speakers in the Panel discussion were:**



**Mr. Jimmy Greer**  
Head – Sustainability  
ACCA (the Association of Chartered Certified Accountants), UK

- i. **Mr. Pradeep K. Kheruka**  
Executive Chairman, Borosil Renewables, and Non-Executive Chairman, Borosil Ltd.
- ii. **Mr. Vijay Karia**  
Chairman & Managing Director  
Ravin Group of Companies, India
- iii. **Mr. Pradip Kumar Das**  
Chairman and Managing Director  
Indian Renewable Energy Development Agency Ltd. (IREDA)
- iv. **Mr. Sunil Jain**  
Chief Executive Officer  
Hero Future Energies Pvt. Ltd.,  
India
- v. **Mr. Prashant Choubey**  
Senior Executive Vice President  
AVAADA Group, India
- vi. **Mr. Sumant Sinha**  
Chairman & Managing Director  
ReNew Power Limited, India
- vii. **Mr. Sushil Kumar Sharma**  
Director (Electrical)  
Satluj Jal Vidyut Nigam Limited  
(SJVN Ltd.), India

**Mr. Kheruka** in his very informed address began by attributing the rapid expansion in demand for domestic production to improved government policies, resulting in a much-needed gradual rise in solar module production in the country. These policies have also enabled Borosil Renewables to increase their production from 180 tonnes/day to 450 tonnes/day; in energy terms – 1GW to 2.5 GW worth of glass for manufacturers of solar modules. He raised a very important question, “Why is it that we have not had a flood of new investors to set up production facilities in India, for the different components of a solar module?” The answer he said, lies in energy production costs. For example production in China is subsidized and incentivized, leading the migration of production from other countries in the world to China. He suggested the concerned Indian ministries to reconsider their policies in this regard. He also suggested a reconsideration of power costs to the manufacturers, to enable competitive pricing in the industry. He pointed out the gap



**Mr. Pradeep K. Kheruka**  
Executive Chairman, Borosil Renewables, and  
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Indian Renewable Energy  
Development Agency Ltd. (IREDA)



**Mr. Sunil Jain**  
Chief Executive Officer  
Hero Future Energies Pvt. Ltd.,  
India

between renewable power and grid power, and an urgent need in India for an integration of the two.

**Mr. Karia** in his erudite address began by looking back at the last energy transition which took place over a 100 years ago, with the coming of electricity and oil which completely reshaped the global economy. Another transition which continues to reshape the global economy is the demand for data and data sovereignty. Communication of this large amount of data is generating a greater need for electricity. He felt: "We are on the cusp of a new energy transition, where electricity shall retain a dominant position, across all economies and countries." With the increasing levels of global warming & greenhouse effect, we cannot afford to burn more fossil fuels. The mantra of 'more from same energy' needs to be applied in the energy sector. He shared that energy transition is also happening in hybrid energy, battery system and fuel cells. Speaking of the future, he said batteries will be key to this transition. He

was of the view that hydrogen will play a major role across various sectors. Countries adopting hydrogen as source for energy, will have a massive first-mover advantage over others.

**Mr. Das** informed that India has varied energy sources, but like the rest of the world, these are finite. With the increasing population, demand for energy will also increase. Speaking of the renewable energy industry, he noted that the industry is growing at 17% CAGR. The sector has also done well for employment generation, with over 5 lac direct jobs and 50 million indirect jobs, with a bulk of them concentrated in the semi-urban and rural areas. Commenting on the growth of the sector, he said initially India was focussing mainly on decentralized and small hydro project. Over the years, on account of massive reduction in capital and production costs, we have moved on to heavy production and consumption of energy from renewable sources. Currently, the Indian Government is working towards becoming '*atmanirbhar*'

in solar energy generation. Mandated by the Paris Agreement, India has to reduce CO2 levels, which has further provided a thrust for this sector. To enable this transition, India has recently permitted 100% FDI in Renewable Energy sector, along with a number of other enabling policies which have been put into place. During the pandemic, the renewable energy sector was affected by adverse sentiments, liquidity crisis, and extension of deadlines, with a fall in demand. The Govt. of India supported the sector with appropriate measures such as relief, capital infusion and a relief package worth Rs. 1,90,000 crore extended to the loss-stricken discoms.

**Mr. Jain** in his informed address spoke on the financial issues ailing the energy sector. If India has to make the energy transition to renewable sources, availability of capital is essential. Underdeveloped countries do not have such capital availability. Corporates of the world will have to step in for real sustained development. He raised two very important questions to all the



**Mr. Prashant Choubey**  
Senior Executive Vice President  
AVAADA Group, India



**Mr. Sumant Sinha**  
Chairman & Managing Director  
ReNew Power Limited, India



**Mr. Sushil Kumar Sharma**  
Director (Electrical)  
Satluj Jal Vidyut Nigam Limited  
(SJVN Ltd.), India

corporates –

- i. Is there any Board-level Sustainable Development Committee, like CSR or NRC committees?
- ii. Do we have a board level vision for Sustainability?

We must keep always in mind that we have only one planet. Climate risk is serious and it is bound to become more vicious. A move from fossil to non-fossil fuels is needed. However, he had one question for the current energy transition taking place, “Is the energy transition that is happening, sustainable?” It is estimated that by 2035, the world would have 400 million solar panels to be disposed, re-cycled or re-deployed. Lastly, he urged Governments around the world to work on a new policy framework for their disposal and reusability of solar panels and even batteries, a few years down the line. He also called on domestic boards to consider the same.

**Mr. Choubey** spoke very clearly and identified wider deployment of

renewable energy with harmonious integration with the grid as one of the biggest challenges for the power and renewable energy sector integration going forward. In his view, “energy transition would also mean ensuring cheap, quality and reliable power for urban & rural users, industries and the poor. He praised India for its most ambitious project of having renewable energy of 450GW by 2030. India has become a top leader in the global renewable market. He urged for standardisation of policies, uniform laws and guidelines for the long-term stability of the sector. On the technological front, he mentioned that 'storage of energy' remains an issue and we have to find an efficacious solution for it. He lauded the 'One World, One Sun, One Grid' initiative of the PM of India, as it would set the tone for an efficient transmission and distribution system globally.

**Mr. Sharma** urged that India has a huge task to shift from fossil energy to renewable energy. India's per capita

consumption per unit has increased manifold. Currently, SJVNL has a portfolio of more than 8000 MW, comprising hydro, renewable and thermal power. In his view, in order to accelerate the energy transition process, we need to bring together technological advancements and government policies to achieve our common goals.

We have a challenge to store electricity generated from wind or solar sources. Although the option of Lithium-ion batteries exists, their production and availability is still limited. The socio-economic barriers of shifting from coal and oil-based fuel to renewable energy sources need to be looked into, also accounting for the possible employment loss in the process. He proposed three solutions in energy sector, especially in countries like India:

- i. Systematic energy management, especially at the local level including the district and village levels, for real transition.



**Mr. Pradeep Chaturvedi**  
Vice President  
Institute of Directors



**Mr. Ashok Kapur, IAS (Retd.)**  
Director General  
Institute of Directors

The Panel discussion was followed by an energetic and interactive Q&A session, where the participants showed their keen interest in the deliberations.

**Mr. Pradeep Chaturvedi**, Vice President, Institute of Directors, India, in his '**Closing Remarks**' mentioned that IOD must look at both the macro & the micro picture. Capital availability will remain one of the major issues in the energy sector. Business will play an important role in the energy transition and Sustainability issues.

According to the feedback received by the IOD, especially from the listed (herein before) ten companies that had participated through their experts/directors/ industry representatives most of them broadly supported the initiative taken by IOD to organise such sector-specific webinars & bring together official & private players on a common platform, with a global reach.

The State Govts. of Karnataka & Madhya Pradesh had also participated at various levels, along with senior experts from the Union Ministries of Power & Renewable Energy. ■

Compiled by:

**Mr. Ashok Kapur, IAS (Retd.)**  
Director General  
Institute of Directors

and

**Ms. Sana Rehman**  
Executive Editor – Director Today

- ii. Promote hydro sector, which has a potential of 90GW.
- iii. Investment in new technologies, such as hydrogen fuel cells and energy sources with zero emissions.

Mr. Sinha said industries are one of the largest emitters of carbon. Hence, it is incumbent upon organisations to reduce this. Electricity represents only a third of the world's energy needs right now. Hence, greening of electrification through more renewable energy is the need today. He deliberated on the future

of the sector for the next 30-40 years, with the main focus of companies being to reduce carbon emissions. He also expects installed and manufacturing capacity to multiply 10 to 15 times, presenting a massive opportunity in the sector. He foresaw the transportation and mobility sector getting electrified, backed up technological evolution. "As a sector, renewable energy will play one of the largest parts for infrastructural development in the country." he concluded.

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