

Indian Wind Power

Windergy India 2022 International Trade Fair and Conference - Proceedings

27th to 29th April 2022

Hall Nos. 12 and 12 A
Pragati Maidan, New Delhi

Organized by

Indian Wind Turbine Manufacturers Association (IWTMA)
and
PDA Trade Fairs Private Limited

Windergy India 2022 Sessions

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Windergy India 2022 International Trade Fair and Conference was organized by Indian Wind Turbine Manufacturers Association (IWTMA) and PDA Trade Fairs Private Limited from 27th to 29th April 2022 at Hall Nos. 12 and 12 A, Pragati Maidan, New Delhi.

The three-day International Trade Fair was formally inaugurated by H.E. Freddy Svane, Ambassador of Denmark on 27th April 2022 morning by cutting the ribbon along with Mr. Tulsi Tanti, Chairman, IWTMA; Mr. G. Kumar Naik, IAS, Additional Chief Secretary, Government of Karnataka and Mr. Ramesh Kymal, Renewable Energy veteran to mark the occasion.

Thereafter Chief Guest accompanied by other dignitaries walked through the various stalls at Trade Fair in Hall Nos. 12 and 12A having the stalls from various companies all over the world.



Mr. Tulsi Tanti, Chairman, IWTMA welcoming Chief Guest H.E. Freddy Svane, Ambassador of Denmark



Inauguration of Exhibition - Ribbon Cutting by H.E. Freddy Svane, Mr. Tulsi Tanti and Mr. Ramesh Kymal



Lighting of the lamp by H.E. Mr. Freddy Svane



Traditional welcome with shawl



Walking around on few stalls



Interacting with participants

**Conference on
'Power of the Wind:
India's Driver to Net-Zero'**

**Special Plenary Session
Conference Inauguration**

**27th April 2022 | 11.00 am
Wednesday**



Synopsis

- High PLF, 90% localized content and 4000 MSMEs for components is a great opportunity for global players to invest in wind energy manufacturing.
- Green hydrogen and green ammonia are the future of the transition.
- India has to add 100 GW of wind in the next 8 years that needs Rs. 80000 Crores investment per year to achieve 140 GW by 2030.
- So far wind was for low cost replacement of coal, now it is to replace oil also.
- Power produced by the Indian wind industry is the lowest cost fuel in the world.
- With manufacturing capacity of more than 15000 MW, India can be the Global Manufacturing Hub.
- It is the time to bring the new bidding process to unlock market potential.
- Wind solar hybrid with storage needed to stabilize the grid systems.
- On various issues in wind energy a committee has prepared the report. Government will examine it.
- Offshore wind models need assured subsidy initially.
- More exports are needed.

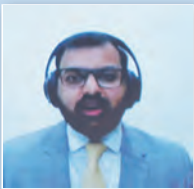
Overview of the Conference 'Power of the Wind: India's Driver to Net-Zero'	Mr. Tulsi Tanti Chairman, Indian Wind Turbine Manufacturers Association (IWTMA) and Chairman and Managing Director, Suzlon Group
Plenary Address	Mr. G. Kumar Naik, IAS, Additional Chief Secretary, Energy Department, Government of Karnataka
Presidential Address	Mr. Indu Shekhar Chaturvedi, IAS, Secretary, Ministry of New & Renewable Energy, Government of India
Special Address	H. E. Freddy Svane Danish Ambassador to India
Vote of Thanks	Mr. D.V. Giri Secretary General, Indian Wind Turbine Manufacturers Association (IWTMA)



27th April 2022 | 12.00 noon
Wednesday



Moderator



Mr. Shantanu Jaiswal
Head of India-Research, Bloomberg NEF
(Virtual)

Co-Moderator

Mr. Hemkant Limaye
Senior Director
L.M. Wind Power
Bengaluru

Panelists



- **Mr. Ashwani Kumar**
Group CEO
Suzlon Group
- **Mr. Balram Mehta**
Chief Operating Officer
ReNew Power
- **Mr. Lars Bondo Krogsgaard**
CEO-Onshore
Siemens Gamesa Renewable Energy
Spain (Virtual)
- **Mr. Amar Variawa**
Senior Director
Vestas Wind Technology India P. Ltd.
Mumbai
- **Mr. Parag Sharma**
Founder & CEO
O2 Power
New Delhi

Synopsis

- Changes are needed for off bid access for corporate off take.
- State specific bids to central procurement needed for security to IPPs.
- The problems faced by the IPPs are: (i) Feed-in-Tariff which the 30GW of wind is facing, (ii) Health of Discoms - Receivables beyond 15 months in some states and (iii) DSM is a new issue cropped up impacting 14 paisa to wind.
- Financiers are concerned with wind projects due to solar cost going down and delayed execution.
- More RPO percentage on large power consuming industries needed.
- States have to make the policies in line with the government of India terms.
- Due weightage is given to green component with 15-20 paise more tariff.
- Small investors are to be brought back by some schemes like wind park, etc.
- Repowering of old below MW machines needed with present tariff.
- Market reforms like General Network Access (GNA) should be implemented.
- Banking to be provided by the states.
- Solving of open access issue will open a large RE market.
- Capacity to be divided in various states to solve the problems of execution.
- GST For the RE devices increased from 5 to 12 % is a concern.
- For new technology supply chain is not ready, Import duty exemption needed.
- PLI is needed for India to migrate from 2 to 3, 4, 5 MW platform.
- 5-6 MW offshore turbines needs large preparations by manufacturers.



Synopsis

- Zero Emission targets of 2070 will bring in green electricity in transport and other sectors will increase the demand more.
- Electricity is only 17% of total “Energy Demand” and rest is primary fuel.
- Clean hydrogen and ammonia will create more demand.
- 2030 will see 8 fold increases in refrigeration and 9-10% for all discoms for industrial sector.
- Grid management with renewable energy to be done with storage, hydrogen, etc.
- In place of RTC, some states are asking SECI to follow their load curve.
- SECI is working on a state for RTC with thermal blend.
- At the PPA level work is on to tie up 60% with Discoms and 40% to market.
- SECI is doing a study with the energy exchange about the merchant project to see the return for the 15 years 15-min block for the 2039.
- Return are very high in projects not less than 17-18%, in wind, it is more than 25%.
- Wind turbines can give PLF of 40% to 45% and solar 18% is the limit (DC).
- ISTS combined cost of wind would be lesser because of the higher PLF.
- RTC should have a renewable blend.
- Hydrogen technology needs improvement. Electrolyzer to locate with the RE plant.
- Government to stick to policy framework, remove uncertainties, investor-friendly tenders, assured off-take and assured payment needed for investors’ confidence.

Moderator	Mr. Rakesh Nath Former Technical Member Appellate Tribunal of Electricity
Panelists	<ul style="list-style-type: none"> • Mr. S.K. Mishra Director (Power System) Solar Energy Corporation of India • Mr. Vikas Chandra Agarwal Director-Distribution Uttar Pradesh Electricity Regulatory Commission • Mr. Chintan Shah Director-Technical Indian Renewable Energy Development Agency • Mr. Kapil Maheshwari Leader - Renewable Energy & Green Hydrogen Ecosystem Reliance Industries Limited



Special Session

27th April 2022 | 3.30 pm
Wednesday

**Special Session with
Mr. Alok Kumar
Secretary, Ministry of Power and
Dr. Ajay Mathur, DG, ISA**



Turbine
Manufacturing and
Make in India

Mr. Tulsii Tanti
Chairman, IWTMA and
Founder Chairman and
Managing Director
Suzlon Group, Pune

Prospective of
Deployment
of Large Scale
Investment for
Capacity Addition

Mr. A. Nithyanand
Business Head
Renewables, Sembcorp Energy
India Limited

Special Address:
Absorption of
Renewable Energy
and Role of
Discoms

Mr. Alok Kumar
Secretary, Ministry of Power
Government of India

Keynote Address

Dr. Ajay Mathur
Director General
International Solar Alliance

Synopsis

Turbine Manufacturing and Make in India

- 15000 MW manufacturing capacity with 90% localisation and robust supply chain of 4000 SME companies giving employment to many thousands in rural areas.
- Production Linked Incentive (PLI) for 4, 5 and 6 MW turbine technology is needed.
- Feed-in-tariff mechanism to be introduced at state for below 50 MW projects.
- Promote state wide bidding on central procurement and bundle the power.
- Currently the reverse bidding process is not sustainable.

Prospective of Deployment of Large Scale Investment for Capacity Addition

- We need 500 bn \$ for renewable infrastructure, grid, transmission and distribution networks.
- High load factor expectations, new technologies, grid stability requires the wind sector, the manufacturers, OEMs and IPPs to step up again.
- Robust discoms are needed.
- Land constraints, grid alignment to bids and local bureaucracy support needed.
- Payment security mechanism is needed.
- Storage and hybrid tenders should be greater priority for round the clock power.
- Right strategy and policy framework needed for wind industry development.

Absorption of Renewable Energy and Role of Discoms

- Discoms serving millions of poor consumers have to see the social, economic and political perspective and to make energy transition successful or otherwise.
- Tariff has to be competitive and viable. The era of feed-in-tariff is over.

Hydrogen produced by wind and solar power will change the energy scenario





Synopsis

- For 500 GW target by 2030 with 75:25 solar and wind, taking Rs. 4 and 7-8 Crores/MW respectively, around US\$ 200-250 million are needed over the next 8 years.
- Large debt pool is needed from domestic lenders/public and private sector banks.
- Domestic/corporate bond market, multilateral lenders are other sources of finance.
- A number of IPPs are approaching international bond markets/funds.
- The problem is with the right policy framework not with the finance.
- Sustainable development goals and 17 parameters are important in carbon finance.
- The World Bank and other financial institutions play role in green finance.
- Companies are looking for 9 or 10 % profit.
- A number of investors want to put the money in renewable energy projects in India.
- Green finance also includes sectors like air pollution, biodiversity, water, etc.
- Environment Impact Assessment standards need to be strengthened.
- Only 5 % of the investment has come from international private investment.
- World Bank and their lateral are the largest custodians of donor funds and grant financing globally for clean energy projects.
- Project appraisal, feasibility and viability are important not government guarantee.
- Challenges of Green Finance are: low tariff, market uncertainties, right of way, land cost and availability, connectivity, projects not commissioning, regulation changes, some IPPs not benefitting from long-term PPAs, GST and other duties, etc.
- Government must explore points for green finance in RE space are: separating RE from power sector, exposure of large private banks to RE, setting up Green Energy Bank, cash flow-based financing by PSUs, Privatization of DISCOMs, etc.
- Stable policy regime of India is attracting international investors to invest in India.
- Cost of capital to be brought down to reduce the cost of power.
- Diversifying climate finance is needed—like the Canada pension funds, REIT, etc.
- World Bank is working on hydrogen, round the clock power, etc.

Moderator

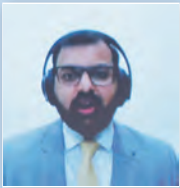
Mr. Srinivas Krishnaswamy
CEO, Vasudha Foundation

Panellists

- **Mr. Pankaj Sindwani**
Chief Business Officer
Tata Cleantech Capital Ltd.
- **Mr. Ashish Tiwari**
CEO, Koscher Climate India
Private Limited
- **Mr. Satyaki Bhattacharya**
Renewable Energy and
Infrastructure Expert
World Bank
- **Mr. Saurabh Maggo**
Actis Fund



Moderator



Mr. Shantanu Jaiswal
Bloomberg NEF (Virtual)

Mr. D.V. Giri
Secretary General, IWTMA

Address by

Ms. Gauri Singh
Deputy Director General
International Renewable
Energy Agency (IRENA)

Synopsis

- 21% electricity as energy carrier to go about more than 50%.
- Green hydrogen coming in to contribute about 12%.
- 90% of the electricity will be coming from RE to reach Net Zero situation.
- Complete overhaul of both energy production and energy consumption.
- Systemic changes in grids and energy systems management needed.
- India should move into offshore wind as investors are showing interest.
- India has to come up with a very strong policy framework to harness about 700GB of wind potential as most of the investment comes from private sector.
- Repowering of the pre 2005 windmills in very high and resource rich areas with higher capacity of wind farms coming in.
- Green hydrogen market development will be path breaking for use of RE.
- India should use the opportunity to become the world leaders in the manufacturing.
- Our excellent EPCs have the capacity to lead in energy transition globally also.
- G20 summit happening in India is a great opportunity to showcase what we have but more importantly to change the narrative around certain areas and areas of work. We should push the envelope on policy and our thinking and introduce the narrative that India wants in the global discussion on climate.
- Circular economy is very strongest streams of work. Green steel is another thing not only in large plants but also in MSME sector with almost 50% production which has to use renewables.



Synopsis

- RTM Operations, Real Time Market, Green Term-Ahead Market (GTAM), Day Ahead Market etc, has been introduced. REC Multiplier Framework revamping, General Network Access Framework, Storage Policies, RTC Tenders and various policies of Ministry of Power has an impact on the investors and various stakeholders.
- Sudden changes in regulations are going against the investors' confidence.
- Despite surplus, India could face a power deficit due to lack of proper plans.
- As marginal cost of renewable energy is zero use them whenever available.
- Prepare transmission system for large-scale integration of wind & solar.
- India can go double the capacity of wind energy; Demand and supply balance to be done by regulatory and state utilities.
- Privatization of utilities to be streamlined.
- States must encourage a plug-and-play model to scale up wind energy.
- Discoms can go for General Network Access to transmit electricity region-wise.
- The real-time market framework will be helpful instead of long-term PPAs.
- Tweaking is needed in the existing bidding and format of reverse e-auction.
- Repowering needs strong support from the government.
- Offshore wind should get incentives or subsidies from the government.
- Green hydrogen and green ammonia can have 2 GW of self-sustaining project with wind, solar and storage.

Moderator

Mr. Ajit Pandit
Director & CEO
Idam Infrastructure Advisory Private Limited

Panelists



- **Mr. Anish De**
Global Sector Head, Power & Utilities, National Leader, Energy Natural Resources and Chemicals, KPMG
- **Mr. Mahesh Vipradas**
Vice President, Sembcorp Energy India Limited
- **Dr. S.K. Chatterjee**
Chief – Regulatory Affairs, CERC (Virtual)
- **Mr. Inder Bhabhra**
Country Head, Business Development and Sales
Envision Wind Power Technologies India Private Limited



Moderator

Dr. Chakradhar Byreddy
Director, Renewable Energy
UL-Asia Pacific

Panelists

• **Ms. Dorte Kamper**
Vice President - Sales &
Marketing, LM Wind Power

• **Mr. Servet Sert**
CTO, Senvion Wind
Technology Private Limited

• **Mr. Shashi Barla**
Global Head, Wind
Supply Chain &
Technology (Onshore and
Offshore), Wood Mackenzie
Renewables (Virtual)

• **Mr. Pradip Kumar Dubey**
CEO, Aditya Birla Group

• **Mr. Sreenivas Naidu**
General Manager, R & D
ZF Wind Power Coimbatore
Limited



Synopsis

- Due to special geographical location wind-solar hybrid projects with battery storage are needed. Can combine wind-solar and hydrogen also.
- Offshore in India will fit with hydrogen technology.
- Material development can be done in 24 months with machine learning.
- 5 million tons/annum green hydrogen production by 2030 will add RE portfolio. Its cost to be brought down from \$5-7 to \$1 per kg.
- Electric vehicles are propelling the drive for green electricity and wind is expected to play a significant role in generating green hydrogen.
- There is shift towards the value of wind not LCoE but cost is an important factor.
- Design blade by putting the right material so that it can be reused after its life. Recycling, use of waste material, repurpose them for houses at high altitude, etc.
- Reducing weight (torque density basically) of gearbox and improving its output.
- Maintaining optimum gearbox ratio is of utmost importance. India is driven by high-capacity factor wind turbines.
- Storing energy green hydrogen, etc. should cost less than producing the energy.
- Improving the productivity of materials and components for better performance is necessary with reduced weight, better efficiency and lower cost.
- Offshore should have all infrastructures ready as the cost of failure is very high.
- Cost of logistics, components, material and technology has to reduce our dependence.
- Modular concept in gearbox is being brought for offshore with same core.
- We have to shift from cost driven approach to value driven approach. Wind, solar and battery storage is a good combination to provide base load.
- Life time extension can also be considered before thinking of repowering.



Synopsis

- “One Sun, One World, One Grid”, is concept of a single grid for the entire world.
- There is no such Zero generation throughout, wind will contribute to maximum.
- Forecasting accuracy on intraday is 94-95%. Wind has high PLF.
- Wind energy is diverse, in Rajasthan and Tamil Nadu it blew in opposition.
- Wind integration with grid needs to be strengthened by interconnecting neighbouring systems.
- Forecasting has improved a lot with REMC and infrastructure.
- Capacity value of wind, its contribution during peak, ELCC to study, not CUF.
- 100:60 wind and solar is easy to integrate than 100:60 solar and wind.
- We can change our Load Curve to fairly large extent and it is happening in India.
- Net demand is demand after removing the RE is treated like negative demand.
- Forecast shared with SLDC are just compiled and demand notice is issued to penalise investors. It should be on a large control area rather than at 5 or 10 MW.
- Intermittency issues of both solar and wind cannot be avoided. However, it is important to work beyond the more commercial intermittency issues.
- Wind contributes more to grid in terms of supporting the demand than solar.
- Repowering is to be done at a farm level, capacity will remain same but generation will go up by 2.5 times.
- It is more efficient and easy to bundle the tariff by LDC than a private entity.
- Concept of RTC bid or peak power bid is not good for a nation.
- Planning is needed for market dynamics with Central Government involvement.
- Wind energy is not responsible for system faults, protection systems needed.
- One time contracting an aggregator can add value to system instead of bundling.
- Grid compliance issue is to be addressed. Do not expect same thing from renewable energy.

Moderator

Dr. Rahul Tongia

Senior Fellow, Center for Social and Economic Progress

Panelists



- **Dr. K. Balaraman**

Director General
National Institute of Wind Energy
Chennai

- **Mr. Sushil Kumar Soonee**

Former Advisor POSOCO
Former and Founder Chief
Executive Officer,
Power System Operation
Corporation Ltd. (Virtual)

- **Dr. Cesar Alejandro Hernandez**

International Energy Agency (Virtual)

- **Mr. U.B. Reddy**

Managing Director
Enerfra Projects India Limited

Session - 7

28th April 2022 | 2.00 pm
Thursday

Testing New Waters - Offshore



Moderator

Mr. Atin Jain
Senior Associate
Bloomberg NEF

Panelists



- **Mr. Alastair Dutton**
Chair - Global Offshore Task Force, Global Wind Energy Council (GWEC) (Virtual)
- **Dr. K. Balaraman**
Director General
National Institute of Wind Energy, Chennai
- **Mr. Markus Kösters**
Head of Business Development
New Markets
RWE Renewables GmbH



- **Mr. Neils Steenberg**
Executive General Manager for
Offshore Asia Pacific
Siemens Gamesa (Virtual)
- **Dr. Prabir Kumar Dash**
Scientist-D, Ministry of New &
Renewable Energy
- **Mr. Bernhard Telgmann**
President Technology
Suzlon Energy Limited

Synopsis

- 500 GW renewable energy target by 2030 will certainly need offshore wind also.
- Offshore wind is costly with more risks like: technology, lease management, access to capital, stakeholder management. Cost will come down later.
- A clear roadmap and break down of 30 GW offshore in each year is needed.
- Tap on experience of others and not copy paste as offshore is a totally different.
- Proper planning, regulations, supply chain, grid and port development needed.
- Ministry of Finance is currently discussing support by viability gap funding.
- Unique challenges for OEM are: different geographies, wind conditions, CUF of equipment for specific place, high temperature, typhoons, cyclones, different class of turbines for west coast and south coast, underwater stuff, etc.
- For 1 GW of Gujarat offshore project two years complete wind data are available.
- NIWE is having a model 1 and model 2 for development. Fixed/floating structure measurement, floating lidars, all are at various stages of study or completed.
- NIWE and MNRE will discuss what additional studies are required.
- Subsidies support, viability gap funding, cutting the import tax for the turbines and other incentives are required from government to build the first projects.
- India should fix a tariff that can be Rs. 3.50/kWh and then have the developers bid on the viability gap funding, concept note for which has been sent to Ministry.
- Existing manufacturing facilities cannot be used fully as such for offshore.
- NIWE is putting the test centre at Dhanushkodi.
- Model 1 and model 2 are proposed. The industry is more used to the model 2.
- First, the financial support will be there for 3 GW.
- OEMs should indicate the additional information they need to enable government to calculate and present before the top people in government.



Synopsis

- Last few years wind capacity has not grown. Now in 9 years 100 GW is to be installed. MNRE is open to suggestions and is looking for the business models.
- Danish and Spanish companies are in Indian wind power since long.
- Long-term policy, cooperation among developers, government & TSO is needed.
- States can see for the state specific tenders.
- We have good seabed and need not go for floating offshore wind.
- We already have the domestic base of 13 GW and can add on for offshore.
- Wind sector needs PLI scheme for offshore wind for new technologies.
- PLI and VGF both cannot be given for a particular sector. RPU, REC related benefits are being contemplated.
- Wind is less burden on the storage. As the business models go forward, round the clock dispatchable renewable energy would be critical for us to go forward.
- Service providers are facing various issues, government to get benefits to them.
- Foreign investments with 100 FDI, payment security, risk coverage, etc. will make India to be in the safe zone for the next eight years to achieve the 500 GW targets.

Moderator	Mr. Alok Brara CEO & Publisher India Infrastructure Publishing
Panelists	<ul style="list-style-type: none"> • Mr. Dinesh Jagdale Joint Secretary, Ministry of New & Renewable Energy, Government of India • Mr. Gonzalo-Alfonso Navarro Hernandez Economic and Commercial Counsellor Embassy of Spain in New Delhi • Mr. Martin Hansen Deputy Director-General Danish Energy Agency • Mr. K.P. Rudrappaiah Managing Director Karnataka Renewable Energy Development Limited • Mr. M.A. Pise General Manager, Maharashtra Energy Development Agency



Valedictory Session

28th April 2022 | 4.10 pm
Thursday

Conference on 'Power of the Wind: India's Driver to Net-Zero'



Chief Guest

Mr Anand Kumar
Former Secretary, Ministry of New and Renewable Energy and Chairman RERA, Delhi

Mr. Hemkant Limaye
Senior Director
Global Marketing, L M Wind Power

Mr. D.V. Giri
Secretary General
Indian Wind Turbine Manufacturers Association (IWTMA)

Synopsis

Mr. D.V. Giri gave the opening remark at the Valedictory Session and welcomed Mr. Anand Kumar. Mr. Hemkant Limaye summed up the Conference proceedings.

Mr. Anand Kumar in his address stressed on the following points:

To collectively ponder on low installation and how to move forward, bids should be spread to all the windy states, wind should be part of RTC with solar without base power of coal, single window system for all clearances, identify problems faced by OEMs and remove them, support wind energy procurement and wind manufacturing, process and bring in the latest technology to improve the efficiency of the turbines, erecting transmission lines simultaneously and plan to be chalked out for up to 2030, availability of off the shelf bid documents and project financing, try with new experiments, interact and talk about the industry problems constantly.

Mr. D.V. Giri proposed the Vote of Thanks to all associated with the Windergy India 2022 Trade Fair and Conference and informed that this is a biennial event and date for 2024 will be announced soon.



Windergy India 2022 International Trade Fair and Conference was organized by Indian Wind Turbine Manufacturers Association (IWTMA) and PDA Trade Fairs Private Limited from 27th to 29th April 2022 at Hall No. 12 and 12 A, Pragati Maidan, New Delhi. Windergy India 2022 International Trade Fair and Conference was organised with the support from the Ministry of New and Renewable Energy, Government of India, Indian Renewable Energy Development Agency (IREDA), Solar Energy Corporation of India (SECI), India Energy Storage Alliance (IESA), Indian Wind Power Association (IWPA), Independent Power Producers Association of India (IPPAI), National Institute of Wind Energy (NIWE), Solar Energy Corporation of India (SECI), Skill Council for Green Jobs (SCGJ), World Wind Energy Association (WWEA), National Small Industries Corporation (NSIC), REAR –Renewable Energy Association and The Energy and Resources Institute (TERI). Denmark and Government of Karnataka, through Karnataka Renewable Energy Development Limited (KREDL), joined Windergy India as the Partner Country and Partner State respectively. The following programmes were also organised at the side-lines of the Trade Fair and Conference.



Indian Wind Power Magazine: Release of Windergy Special Issue

The Windergy Special issue of Indian Wind Power magazine Volume 7, Issue 6 for February-March 2022 was brought out for the event. The issue was released by Mr. Alok Kumar, Secretary, Ministry of Power, Government of India along with other dignitaries present on the dais.

Exhibitor Directory & Conference Souvenir

An Exhibitors Directory and Conference Souvenir was also brought out during the event giving details of all the companies who have exhibited their products and services at the exhibition. This also contains the bio-data of all the speakers and the profile of the exhibitors besides messages from the sector stalwarts.



Delegates

The conference was attended by over 300 delegates from various fields like OEMs, Component Manufacturers, Government Authorities, IPPs, Regulators, Consultancy Firms, Electricity Transmission Companies, Auditors, Investment Companies, Energy Institute, etc.

Conference, Sessions and Speakers

Besides the Plenary, Special and Valedictory sessions, the Windergy India 2022 arranged 8 sessions with 60 eminent speakers from all over the world in the field of Wind Energy, OEMs, Component Manufacturers, Government Authorities, IPPs, Regulators, Consultancy Firms, Electric Transmission Companies, Auditors and Investment Institutions, etc. The detail of the sessions and speakers is given in the previous pages in this magazine.

Programme at the Side-lines of the Conference and Trade Fair

A number of programs were conducted at the side-lines of the conference and trade fair by various institutions. Karnataka Government conducted a round table for participants to get the first hand information on Karnataka's plan to upgrade the renewable energy generation capacity of the State to 10 GW in the next five years.

Technology Presentation on Digitalisation in Wind Turbine Operations and Maintenance

27 April 2022 14.00 to 14.15 hrs by Mr. Sharad Pipagre, Business Development Manager, Onyx Insight.

Presentation on Site Right tool

28 April 2022 11.5 to 11.15 hrs by Mr. Joe Kiesecker, Lead Scientist, The Nature Conservancy.

Technology Presentation on Bringing Sustainable Efficiency to Wind Power

28 April 2022 12.05 to 12.20 hrs by Mr. Raj Kumar Singh, Director Business Development, Schneider Electric India Private Limited.

Technology Presentation on "Improving Wind Turbine Gearbox Reliability through Offline Filtration"

28 April 2022 15.00 to 15.15 hrs by Mr. Mark Barnes, Senior Vice President, Global Business, Des-Case Corporation.

VIP Networking Dinner

A VIP Networking Dinner was organized in evening at The Oberoi, New Delhi on 27th April 2022 attended by major IPP's, OEM's, Speakers and Government Officials, hosted by ReNew Power.

Exhibitors Networking Evening

An Exhibitor's Networking Evening was celebrated with all the exhibitors on 28th April 2022 at Pragati Maidan, New Delhi hosted by Solar Energy Corporation of India.

The Windergy India 2022 International Trade Fair was set up at Hall nos. 12 and 12 A at Pragati Maidan, New Delhi. 150 exhibitors from India, Austria, Denmark, UK, Italy, Germany, France, USA, Malaysia, Papua New Guinea and China exhibited their products and services at the trade fair. Over 3000 wind industry experts besides many thousands enthusiastic public thronged the trade fair on all the three days.

A number of OEMs, component manufacturers and service providers from all over the world were amongst the exhibitors. Large number of IPPs were also part of the event.

Karnataka Renewable Development Agency Ltd signed expression of interest for wind, solar and hybrid projects for generating total capacity of 9218 MW with an investment of INR 61227 crores at Windergy India 2022. German Pavilion organised by the Indo German Chamber of Commerce was also part of Windergy India 2022.

Media Coverage of Windergy India was very wide with 150 newspapers publishing the news and discussions of Windergy India 2022.

