

seem NEWS

society of energy engineers and managers



www.seemindia.org

Message from President

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Wish the extended SEEM family a happy and prosperous New Year!

We at SEEM have rededicated us to the cause of sustainability.

The new year was started with our successfully convened International Workshop on theme' Industry 4.0 to Net Zero jointly organized with M/s NAM S &T Centre. This was the fifth of its kind triennial International Workshop we had been organizing since 2008 with NAM S & T Centre on contemporary energy topics. We thank NAM centre for the continued association and look forward to more such occasions when we can deliver value to scientific and technological community in India and abroad.

We have now launched a renewable energy division to spearhead activities to catalyze the generation and adoption of renewable energy. This is in alignment to our avowed vision of sustainable energy and a sustainable planet. We will be able to harness the expertise of our members in motivating entrepreneurs to take up projects in various RE technologies.

With this our twin efforts in energy efficiency and renewable energy will contribute towards our Nation's vision to attain net zero by 2070. Jai hind!





CONTENTS

JANUARY 2022

E-Course on Compressed Air – Quality & Cost

Webinar on "Role of Maintenance in Chillers for Reliable and Efficient Utilisation"

The International Training Workshop on 'Industry 4.0 and Energy Management 'on 19-20th January 2022

Energy Manager Magazine re-launched on January 2022

SEEM Inaugurated student chapter in Priyadarshini College of Engineering, Nagpur

SEEM Karnataka Chapter organised a curtain raiser to the International Training workshop

Webinar on COP26 – Challenges for the Energy Professional

SEEM Tamil Nadu Chapter Members involved in different activities

Preparatory course on EA/EM Examination

Households free to install rooftop solar panel by any vendor under Govt. scheme: MNRE

HPCL's Visakha Refinery all set for Rs 26,264 crore expansion

HOP Electric launches state-of-the-art megaplex in Jaipur; output capacity at 100 e-scooters a day

CEA projections show no new coal energy project in 10

Renewable energy industry hopeful of upcoming National Hydrogen Policy

SJVN plans to develop 10,000 MW solar projects in Rajasthan over 5 years

ReNew Power commissions Gujarat's first wind-solar hybrid project

GE Renewable Energy opens hybrid factory in Vallam,

UNEP signs MoU with Mah govt for implementing climate change actions

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Beyond Industry 4.0, towards society 5.0

Wish you a very happy new year!

We at SEEM had a successful International workshop on the theme of industry 4.0 leading to Net zero. Background study for industry 4.0 led me to stumble upon the concept of society 5.0 which was found to be extremely stimulating.

My generation groomed in the backdrop of industry 3.0 and society 3.0 and society 4.0 may tend to think of society 5.0 as figment of wild imagination or a utopian idea. However, the recent pandemic and the awakening of human conscience will put the human centric development ahead of pure technological advancement. The idea of humans getting assisted by technology rather than getting enslaved to technology will mark the society 5.0. The industry 4.0 which is the dominating theme now with its emphasis on technological modalities will lead into industry 5.0 where human intelligence will supplement artificial intelligent to enhance the society and its many facets of life with higher intelligent interactions. And that will pave way for people working free of encumbrances on thoughts about efficiency or even restrictive and discriminative influences on individuality like those of nationality, religion, gender and race.

Industry 5.0 will be a harbinger to this transition of society. The hallmark of industry 5.0 will be human cognitive skills working in unison with artificial intelligence, extrapolating its possibilities to create unimaginable value to the society. The accuracy of machine brains when augmented by creativity and imagination of human brains, it will be a dawn of an era where anyone can explore and exploit his unique, distinct abilities to create opportunities anywhere, any time. This super intelligent environment may enable resilience of the society in the face of that day challenges bereft of the tribulations which present society faces when posed against disasters. There are looming dangers of cyber security and too much dependence on digital technologies without understanding the grey areas.

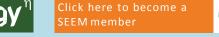
Moving beyond just net zero, such a future will see the super harmonious existence of environment and contented humankind enjoying abundance and enduring values. We have to consciously groom the architects of such a future now. Our present institutional frame work of Governments, academia, industry and civil societies have to work systematically and collaboratively to awaken the present and future generation toward this aspirational goal of sustainability, prosperity and peace.











PROGRAM

E-Course on Compressed Air – Quality & Cost

SEEM Tamil Nadu Chapter organising an E-Course on Compressed Air – Quality & Cost on 16th February 2022 at 7 pm to 9:00 pm

E Certificate will be issued on successful completion of training

About the Trainer



Dr. R. Sivakumar

Dr. Sivakumaris working as Cluster Leader at Coimbatore for GEF-UNIDO -BEE Project on "Promoting Energy Efficiency and Renewable Energy in selected MSME Clusters in India: since 2014. He has about 15 years experience in various types of Industries and 4 years experience in Academics. He successfully completed and implemented around 60 Project Proposals.

Has carried out 40 detailed Energy Audits in various Sectors including Textiles, Paper, Foundries, Educational Institutions, Tea Manufacturing etc., Has organized 40 workshops for the Cluster and Trained about 1000 Professionals.

Has Presented Several Technical Papers in National & International Foundry Sector Workshops . He has a Master Degree in Embedded Systems and obtained Doctorate from Anna University. He Is a Certified Energy Auditor of Bureau of Energy Efficiency.

Membership in Professional Bodies:

- (1) Associate Member in Institution of Engineers , Kolkatta
- (2) Member in ISTE
- (3) Life Member in SEEM

Course Fee (including GST):

(10% discount on the Fee for group registration of 5 and above)

General

- Rs.500/-

SEEM Members & Faculty Members and Students

- Rs.250/-

from Educational

Institutions

Key takeaways from the program

- ✓ Understanding the energy efficiency and its impacts on the compressed air systems
- ✓ Best operating practices to reduce the energy consumption
- ✓ Latest technologies available in the compressed air systems

Course Coverage

- (1) Air compressor energy consumption
- (2) Best practices in the compressed air system
- (3) IoT based performance monitoring of compressed air system
- (4) Case studies implemented through UNIDO project
- (5) Other opportunities in energy saving measures in the compressed air system

Targeted audience

- ✓ Industry professionals Maintenance, Production, Quality and Design persons
- ✓ Academic professionals and Students
- ✓ Energy Managers and Energy Auditors
- ✓ Green Building Professionals.

Registration Link

https://forms.gle/BcRtiV9F5mULPEf28

Address:

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Webinar on "Role of Maintenance in Chillers for Reliable and Efficient Utilisation"

Society of Energy Engineers and Managers (SEEM) Karnataka chapter organised a webinar on "Role of Maintenance in Chillers for Reliable and Efficient Utilisation on 12th February, 2022 at 07:30 pm - 08:30pm. This webinar was the second part of the seminar on "Low temperature refrigeration system".

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The webinar covered the following topics:

- Maintenance practice in chillers system
- Effects of maintenance in energy consumption
- Case studies
- Q & A



Mr. A. Srinivas - (Maintenance Engineer, BAARC (Rtd.) . Graduated in Mechanical Engineering from SICE Mysore. He worked as Maintenance Manager in M/s. Agva Fun Foods(I), Dharwad. Joined BAARC, Mysore in 1986 and retired in 2020.

He is an expert in the field of selection, design, erection, commissioning and maintenance of chillers, refrigeration system up to -80 deg;. C. Involved in erection, Commissioning and operation of class 100, class 1000 clean rooms. He is currently working as a consultant for Rachana Ener Care Group, Mysor

The International Training Workshop on 'Industry 4.0 and Energy Management 'on 19-20th January 2022

SEEM successfully organised the International Workshop on "Industry 4.0 and Energy Management" on 19-20 of January 2022 . . The workshop was attended by 400+ delegates from industry, academia and Govt. from more than 50 countries. The workshop was hosted at PCE Nagpur. Mr. M C Jain, President, SEEM inaugurated the program. Dr. Vivek Nanoti, Director, Priyadarshni Group of institutions, India was the co-chair of the Inaugural Session. Prof. Dr. Mohan Khedekar, VNIT, Nagpur and Program Chair welcomed the audience and Introduced the program. Mr. M C Jain, President, SEEM and the Chief Guest Mr. Abhay Bakre, Director General, Bureau of Energy Efficiency, Government of India also addressed the participants. Brief addressed by Dr. Amitava Bandopadhyay, Director - General, NAM S&T Centre. Vote of thanks by Dr. C S Azad, General Secretary, SEEM, India.

Ist Technical session started with the Key Note Address by Prof. Dr. Rajat Agrawal, IIT Roorkee, India. Mr. Deepak Chandran, President, IRIS Energy, USA explained the topic "Industrial Internet of Things (IIOT)". Mr. Raj A. Kapoor, CEO, India Block chain Alliance presented the topic "Cyber Security and Block Chain for Industry 4.0". The last topic of the session "Effective Implementation of Education 4.0 for making students ready for Industry 4.0" was presented by Dr. Vivek Nanoti, Director, Priyadarshni Group of institutions, India. Q&A Session and Discussion followed by Chairman's Remarks.





REPORT

Chair & Cochair of the 2 Session was Mr. Arijit Sen Gupta, Director, Bureau of Energy Efficiency, India Dr. Anil Onkar, SEEM, India. 2nd session started with the Key Note Address by Prof. Dr. Anil Kumar, Head, Centre of Energy and Environment, Delhi Technological University, India. Other topics covered in this session were Regulatory Changes Driving the Sustainable Energy by Dr. Debajit Palit, Director, The Energy Research Institute, India, Sustainable Technology and Products by Mr. Dipen Parikh, Grundfos Pumps, India, Sustainable Energy Technology and Products by Mr Prem Prakash Barnwal, Head Technical and Services, CONSERGY, India and "Beyond industry 4.0 towards Industry 5.0 and society 5.0" by Mr. G. Krishnakumar, Immediate Past Gen. Secretary, SEEM, Q&A Session and Discussion followed by Chairman's Remarks.



Concluding session of International Workshop on Industry 4.0 and Energy Management conducted by SEEM in association with NAM S&T Centre.

Technical session was in 2nd Day (20th Jan 2022). Dr. C S Azad, General Secretary, SEEM was the Chair and Prof. Dr. K B Porate ,Priyadarshnini College of Engg., India was the Cochair and Repertoire. The III Session included the Presentations of Scholars of NAM Countries. They were "Mauritius Stepping on the Trajectory for its Industry 4.0 Revolution" by Mr. Hemraj Ramsurrun, Rajiv Gandhi Science Centre Trust Fund, Mauritius, "Energy Mapping and Management: Critical Steps for Optimal Utilization of Renewable Energy Sources in Nigeria" by Mrs. Fausta Ogbuefi Chima, "Raw Material Research & Development Council, Nigeria, Block chain in Energy Management: A Review" Dr. Subhra Das, Amity University, India, "Implementing a Climate Services Information System (CSIS) in Mauritius - How will it benefit the Energy Sector" by Mr. Krisna Bucha, Mauritius Meteorological Services, Mauritius, "Multilayer Spectrally Selective Thin Films with Remarkable Optical Selectivity for High Temperature Concentrated Solar Power Applications" by Dr. Atasi Dan, National Institute of Standards & Technology, USA and "Energy Efficient Reverse Osmosis Process Development by Membrane Modifications and Waste Heat Utilization" by Dr. Hiren D. Raval, CSIR - CSMCRI, India. Q&A Session and Discussion followed by Chairman's Remarks. Technical session III A included the Panel Discussion - Industry 4.0 To Net Zero. Moderator was Mr. Manish Chakravarty, Technology Leader Co Moderator and Repertoire was Mr. Azeemuddin, SEEM, India. The topic "Industry 4.0 New Working Methods and Business Models" explained by Mr. Vinod Vazhapulli, Managing Director, Skanem,

Chair of the Technical Session IV was Chair: Dr. R Hari Kumar, Director, Energy Management Centre, Govt. of Kerala, India Cochair & , Repertoire were Dr. R K Yadav, DGM ,IPGCL & G Krishnakumar, SEEM, India. Key note addressed by Mr. S P Garnaik, Energy Efficiency Services Ltd., India. Topics covered in this session were Driving Energy Efficiency through the Industry 4.0 by Mr. U V Krishn Mohan Rao, International Expert: Energy, Water and Sustainability, Immediate Past President, SEEM, India and Technologies for Energy Management for Industry 4.0 by Mr. Ashwin Krishna, Managing Director Promethean Energy Pvt Ltd, India. Q&A Session and Discussion followed by Chairman's Remarks.

Chair & Cochair of the Concluding Session were Dr. AmitavaBandopadhyay, Director General NAM S&T Centre and Prof. Dr. Mohan Khedkar, Program Chair. Chief Guest of the program Dr. Ajay Mathur, Director General, International Solar Alliance addressed the Audience. In the concluding session, Participants feed back were collected. Conclusion and Adoption of Resolution followed by Closing Remarks of Mr. Jayakumar R Nair, Vice President, SEEM.

International Workshop on "Industry 4.0 and energy management"

Principal knowledge partner





Other Knowledge Partners

International Workshop





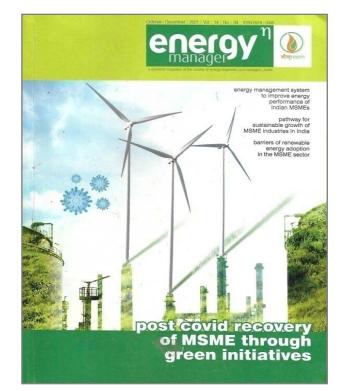
Be part of the Energy **Efficiency Movement**

To combat climate change, we need to use energy more efficiently. And the benefits of this go well beyond that fight. They lead to environmental conservation, cleaner air and water, better public health, energy independence, and stronger economic growth and development. Let's keep the world turning, while saving energy every day. Join us and be part of the Energy Efficiency Movement.

energyefficiencymovement.com



Energy Manager Magazine re-launched on January 2022



The quarterly print magazine of SEEM "Energy Manager" is re-launched after a pandemic situation of spreading of COVID-19. Oct-Dec 2021 issue of magazine is released on January 2022. "Post Covid recovery of MSME through green initiatives" is the theme of this issue. Highlights in the magazine are "energy management system to improve energy performance of Indian MSMEs", "pathway for sustainable growth of MSME industries in India", and barriers of renewable energy adoption in the MSME sector.



Other Knowledge Partners

International Workshop













SEEM Inaugurated student chapter in Priyadarshini College of Engineering, Nagpur

SEEM Inaugurated its Student Chapter in Priyadarshni College of Engineering, Nagpur on 18th January 2022. SEEM also Signed the MoU with Priyadarshni College of Engineering, Nagpur.



Dr. Mohan Khedkar, Chairman Maharashtra SEEM Chapter and Dr. Vivek Nanoti, Director PCE Group of Institution, Nagpur are in the middle.

SEEM Karnataka Chapter organised a curtain raiser to the International **Training workshop**

Society of Energy Engineers and Managers, Karnataka Chapter organised a curtain raiser to the International Training workshop on Industry 4.0 & Energy Management" on 08th January 2022. Mr. U V Krishna Mohan Rao was the presenter. He is an International Expert on Energy & Water Efficiency and Green Business, is an alumnus of IIM, Ahmedabad and College of Engineering, University of Wisconsin, USA and the immediate past President of Society of Energy Engineers & Managers.

Webinar on COP26 – Challenges for the **Energy Professional**

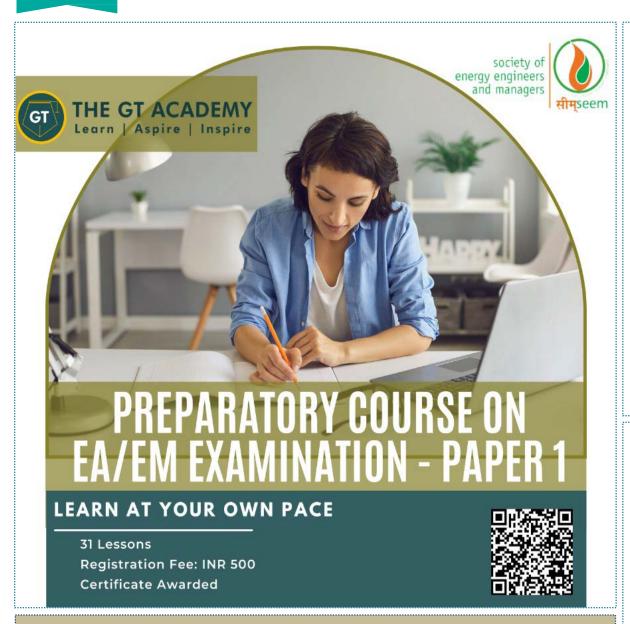
SEEM TN Chapter conducted a webinar on "COP26 -Challenges for Energy Professional" on 12th Jan 2022and the details are given below. Mr. Mahadevan, Former Chairman (TN Chapter) was the speaker of the program. Speaker explained about "Potential in India for harvesting Bio Energy", "Principles and applications of Bio energy" and "Techno Commercial aspects". Well attended by about 20 Participants including Senior Members like Dr. Mohan Khedkar, Mr. R.Gopala krishna etc.

SEEM Tamil Nadu Chapter Members involved in different activities

- Mr. Natarajan, Indian Railways shared a case study on Cost Saving through Retrofitting of Impregnated Oven in Monthly Meeting held on January 7th, 2021.
- Dr. Sivakumar participated in the Energy conservation week celebrations at Indo shell Cast Private limited, Coimbatore and shared best practices in O&M of Melting Furnaces
- * Mr. Ashok Sethuraman participated in the Energy Conservation Mission webinar organized by Institution of Engineers, Telangana Chapter and delivered a talk on "Practice" energy Modesty in Residential & Commercial buildings at least now". He also shared a real life case study on Energy Saving on Paint Booth Blowers in the Group.
- ❖ Mr. UVK Rao addressed the Webinar organized by Vellore Institute of Technology, Vellore on the eve of National energy Conservation Day.
- * Mr. S Mahadevan participated in different webinars conducted by the Vellore Institute of Technology, Vellore on December 23rd.







Registration fee:

Paper 1 - Rs. 500 + GST

Paper 2 - Rs. 1250 + GST

Paper 3 - Rs. 1250 + GST

Paper 4 - Rs. 1500 + GST

Total Cost - Rs. 4500 + GST

If you would like to register for all 4 papers, the fees will be only Rs. 4000 + GST.

What Will You Learn?

This is the 21st National Certification **Examination of Energy Managers and** Energy Auditors, conducted by the Bureau of Energy Efficiency. This exam certifies energy managers and energy auditors in India.

This course will take you through Paper - 1 of the 4 books that needs to be referred during this examination.

Topics Of Interest

- Energy Conservation Act 2001 & Related Policies
- Energy Scenario Global & Indian
- Energy & Financial Management
- . Energy Monitoring & Targeting
- · Project Management Cycle
- · Renewable Energy
- Measurement & Verification
- Material & Energy Balance

For more details and registration, please Paper 1 Click Here Paper 2 Click Here Paper 3 Click Here

Paper 4 Click Here

Contact: Mr. Mohammed Arshad Mob: 87448 15570 E-mail : training@greentree.global



Households free to install rooftop solar panel | HPCL's Visakha Refinery all set for by any vendor under Govt. scheme: MNRE

The Ministry of New & Renewable Energy on Friday said households are free to get rooftop solar panel installed by themselves or by any vendor of their choice and a photograph of the installed system for distribution utility is sufficient to avail benefits or subsidy under the government scheme.

Earlier under the rooftop solar scheme, the households were required to get that from the listed vendors only to avail the benefits and subsidy under the scheme.

The decision to simplify the rooftop solar scheme was taken in a review meeting chaired by Union Minister of Power and New & Renewable Energy R K Singh on January 19, 2022, as per a statement by the ministry.

According to the statement, after the review, the minister gave directions for simplifying the Roof Top Scheme, so that the people are able to access it easily.

He has directed that henceforth, it will not be necessary for any household to get the rooftop solar panel installed by any of the listed vendors.

He has directed that henceforth, it will not be necessary for any household to get the rooftop solar panel installed by any of the listed vendors.

The households may also install the rooftop solar panel by themselves or get the rooftop solar panel installed by any vendor of their choice, and inform the distribution company about the installation along with a photograph of the system, which has been installed, the statement said.

The intimation to the Discom of the installation of the rooftop solar panel can be given either in the material form through a letter / application or on the designated website, which has been set up by every Discom and by the central government for the Roof Top Scheme.

The distribution company will ensure that the net metering will be provided within 15 days of the information being received.

The subsidy to be given by the government, which is 40 per cent for rooftop of up to 3 KW capacity and 20 per cent beyond that up to 10 KW will be credited to the account of the householder by the Discom within 30 days of the installation.

In order to ensure that the quality of the solar panel and the inverter is according to the prescribed standard, the central government will publish from time to time the lists of solar panel manufacturers and inverter manufacturers whose products meet the expected quality standards and the price lists thereof; and the householder can select the solar panels and inverter of his choice.



https://www.moneycontrol.com/news/india/households-free-to-install-rooftop-solar-panel-byany-vendor-under-govt-scheme-mnre-7967481.html

Rs 26,264 crore expansion

New Delhi: The HPCL's Visakha Refinery is set for modernisation and expansion at a cost of Rs 26,264 crore. "This is by far a massive industrial project ever in Andhra Pradesh," BJP MP G V L Narasimha Rao said in a statement here on Monday.

Under the Visakha Refinery Modernisation Project (VRMP), the capacity of the refinery would be expanded from the present 8.3 to 15 Million Metric Tonne Per Annum.

"The VRMP is scheduled to be completed during the year 2022-23," Narasimha Rao said, quoting a reply given by Union Petroleum and Natural Gas Minister Rameswar Teli.

The modernisation and expansion project is expected to have multiple benefits and impact, including supply of Bharat Stage-VI-compliant motor fuels.

It would also enhance energy security with increased refining capacity and improved refinery complexity and conversion efficiency.

The BJP Rajya Sabha member said the project would generate massive direct and indirect employment during the construction and post-construction phases, thereby leaving a positive impact on Indian industry in general and Andhra Pradesh in particular.

"There will be a high local component in the project cost as it will nurture and encourage local industry during the project building and post-project phases. It will boost the state's economy in the form of additional taxes," Narasimha Rao added.



Source::

https://energy.economictimes.indiat imes.com/news/oil-and-gas/hpclsvisakha-refinery-all-set-for-rs-26264-crore-expansion/89418727





HOP Electric launches state-of-the-art megaplex in Jaipur; output capacity at 100 e-scooters a day

MUMBAI: Jaipur-based HOP Electric Mobility on Monday announced the launch of its state-of-the-art megaplex in Jaipur, with its current production capacity pegged at 100 escooters per day. The megaplex has an assembly line, endof-line testing facility, lithium battery, cell testing capability and a paint booth, and churns out the company's existing models (LEO and LYF), HOP Electric said in a statement.

Besides, the soon-to-be-launched indigenous hi-speed ebike OXO and upgraded version of LYF (internally named LYF2.0) will also be produced through this facility, it said.



The latest facility is within the campus of the existing production unit, which has a capacity to produce 50,000 vehicles per month.

HOP had late last year announced that the company has signed an initial pact with the Rajasthan government to set up an electric vehicle (EV) manufacturing plant in Jaipur, with an annual capacity of 1.80 lakh units.

"The Union Budget 2022 has brought policies to boost charging/swapping infrastructure to enhance the EV sector in India. Having said that, we have a long way ahead.

"Consumers are gradually becoming more aware of the importance of EVs, and we are continuously trying to provide consumers with innovative and better facilities. Our newly launched HOP megaplex is the latest initiative in this context," Ketan Mehta, chief executive officer and co-founder of HOP Electric Mobility, said.

The company is sure that its initiatives will push the EV sector to reach its true potential and help consumers avail products that are high-power, stylish, and sustainable, said the statement.

The EV maker said it is already making far-fetching changes in the traditional mobility segment on the back of advanced technology and in-depth research and development, with a considerable push from the government, as stated in Union Budget 2022, HOP Electric is gearing up to spearhead the electric mobility revolution.

HOP Electric also announced the commencement of its regional operations in Jaipur, which was inaugurated by Rajasthan Minister of Road and Transport, Pratap Singh Khachariyawas, the company said in the statement.

Source:: https://energy.economictimes.indiatimes.com/news/power/hop-electric-launches-state-of-theart-megaplex-in-jaipur-output-capacity-at-100-e-scooters-a-day/89423206

CEA projections show no new coal energy project in 10 years

New Delhi: India is unlikely to build any new coal-based energy capacity over the next 10 years when the country's energy mix will tilt significantly towards cleaner sources with solar emerging the top source, the government's internal projections show.

Energy storage systems will play a key supporting role in meeting the country's energy needs by 2032, as per a study prepared by Central Electricity Authority (CEA), the planning wing of the Union power ministry, on future energy mix.

It projects coal and lignite generation capacity at 252 gigawatt (GW) in 2031-32 against the present 235 GW with projects already under construction accounting for the slight increase. Renewable energy generation is seen well over the country's 2030 commitment of 500 GW against 104 GW at present.

As per the proposed energy mix, 44 GW is targeted from grid-scale battery energy storage out of total capacity of 897 GW by FY32.

Hydroelectric capacity is envisaged at 64 GW in FY32 and 52 GW in FY27, up from 47 GW now. Solar energy generation is likely to rise manifold to 334 GW by FY32 from 49 GW at present, and wind energy to 110 GW from 40 GW

Significant addition in installed capacity of over 10 GW is also expected in generation from nuclear and pump storage stations.

The Economic Survey tabled in Parliament on January 31 had said the country needs a policy roadmap for clarity about the pace at which it wants to make a shift from conventional fossil-fuel based sources of energy to determine investments in the renewable energy generation sources.

The survey also said the two main pillars for mitigation action to achieve net-zero carbon ambition are transition to clean and renewable sources of energy and storage of this energy. It called for expediting research on energy storage technologies before global demand pushes up prices of essential minerals.

The revised estimates by CEA are part of an exercise to update the National Electricity Policy (NEP) that lays down quidelines for optimal utilisation of resources such as coal, natural gas, nuclear substances, hydro, and renewable sources of energy and was last tweaked in 2005.



Source:: https://energy.economictimes.indiatimes.com/news/power/hop-electric-launchesstate-of-the-art-megaplex-in-jaipur-output-capacity-at-100-e-scooters-a-day/89423206



Renewable energy industry hopeful of upcoming National Hydrogen Policy

New Delhi: With no financial incentives in the Union Budget 2022-23 to boost the growth of green hydrogen in the country, the renewable energy industry is hopeful that provisions will be provided in the upcoming National Hydrogen Policy

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According to Manoj Gupta, vice-president - solar and waste-to-energy business, Fortum India, the industry was hopeful that the government will provide financial incentives in the Budget for the growth of green hydrogen and making India a global manufacturing hub for electrolysers.

The government, however, committed itself to fight climate change with clean energy.

"Even if the Budget announcement did not include anything around hydrogen, we are confident that the government will surely provide provisions in the upcoming National Hydrogen Policy which is scheduled to be announced in the next few days... with the upcoming policies and support in place we firmly believe that the production of green hydrogen will take the front seat in India in next 5-7 years," Gupta added.

According to Srivatsan Iyer, Global CEO, Hero Future Energies, the recent Union Budget reinforced the government's commitment to a low-carbon development strategy and contained several positives for the renewable energy sector.

"The increase in allocation under the PLI scheme will boost domestic manufacturing for solar modules while sovereign green bonds should open fresh avenues for climate finance. We also welcome initiatives such as the proposed battery swapping policy and the creation of no fossil-fuel zones in urban areas which should boost the electric vehicles market," he said.

He added that while there was no specific announcement related to green hydrogen, they expect that the National Hydrogen Policy will offer much more clarity on this subject.

"The government has made its decarbonization goals amply clear and green hydrogen is definitely a critical enabler to achieving these targets, especially in hard-to-abate sectors," said Iyer.

Several top-tier refineries, both in public and private space, have already floated EoIs or tenders while many power generators have issued orders for green hydrogen fuel cells.

He said that these developments indicate that green hydrogen figures prominently in the government's plans. "We expect that the forthcoming Policy will outline specific interventions such as provision of Viability Gap Financing for initial projects as well as mandated usage of green hydrogen in certain industries, to give further impetus to this emerging technology," he added.

HFE had recently tied up with Ohmium International – a US-based manufacturer of electrolysers.

"This partnership should enable us to develop and build Green Hydrogen production facilities in India, UK and the rest of EU with pilot projects likely to commence soon," Iyer added.



Rajat Seksaria, CEO, ACME Group, said that the Union Budget maintains consistency with the government's stated support and roadmap on energy transition and climate action.

He said that the government's green hydrogen focus has been very clear.

"We understand that the finalised policy is likely to be announced in the next few weeks. At the same time, large capital outlays in green hydrogen, as required, may be provided in the due course." he said.

He said that their interactions with various agencies suggest that the government is very keen to take forward the Green Hydrogen Mission in a well-calibrated manner keeping the Atmanirbhar Bharat and energy security goals in mind.

"We are keen to be a significant participant in the sector and more investment plans will be drawn as and when we finalise the projects," Seksaria added.

He said that the highlight of the Budget was the focus on capital expenditure to push the economy on a higher growth trajectory due to its multiplier effect.

"We believe investments in productive sectors are key to unlocking the true potential of the Indian economy and the Budget announcements are in line with that approach. However, we do hope that we don't slip back to a higher interest regime, which will put a severe roadblock in capital investments.

ACME Group has set up the world's first integrated commercial-scale pilot plant for green hydrogen and green ammonia production in Bikaner, Rajasthan and is also setting up a world-scale green hydrogen and green ammonia project at the SEZ in Dugm, Oman.

Source:: https://energy.economictimes.indiatimes.com/news/power/hop-electric-launches-state-of-the-art-megaplex-in-jaipur-output-capacity-at-100-e-scooters-a-day/89423206





SJVN plans to develop 10,000 MW solar projects in Rajasthan over 5 years

New Delhi: State-run SJVN Ltd is looking to develop 10,000 MW solar power projects entailing investment of Rs 50,000 crore in the next five years in Rajasthan. "SJVN has submitted its intention to develop 10,000 MW solar power projects in next five years in Rajasthan," a company statement said.

According to the statement, the Government of Rajasthan has accepted the proposal of SJVN and an MoU in this regard will be signed shortly.

Letter of Intention (LOI) by SJVN and further Acceptance Letter were exchanged in the august presence of Chief Minister of Rajasthan Ashok Gehlot, by SJVN Chairman & Managing Director Nand Lal Sharma and Additional Chief Secretary, Power, Government of Rajasthan & CMD RRECL Subodh Agarwal in Jaipur on Tuesday, it stated.

Sharma informed that SJVN intents to establish 10,000 MW renewable power projects/parks on the land banks to be allocated by Rajasthan Renewable Energy Corporation Ltd in the state.

An estimated investment of Rs 50,000 crore is proposed by SJVN on developing these projects, it stated.

The commercial production will commence in a phased manner and the power generated will be transmitted to the beneficiaries through nearest sub-stations.

Power purchase agreements for the generated energy will be signed through competitive tariff-based opportunities available in the market.



He further added that these projects will usher in socioeconomic development in the project areas and also open up avenues of direct and indirect employment to about 15,000 people.

Sharma said that driven by the commitment of Government of India to achieve 500 GW of installed capacity from non-fossil fuel sources by 2030, SJVN has re-engineered its business model and has given a major thrust to its renewable energy portfolio in a big way.

"SJVN has proposed to develop solar power projects in Rajasthan as the state has largest solar power potential in the country. It receives the highest solar radiation (5.72 Kwh/m2/day) and also has the highest number of more than 325 clear sunny days in a year. All these factors work in our favour of developing the projects," he said.

Sharma said that SJVN has 2,750 MW of renewable energy projects in its portfolio. He added that the company has recently upgraded its shared vision to installed capacity of 25,000 MW by 2030 and 50,000 MW by 2040.

The revision of targets is a result of SJVN being awarded mega power projects in India and abroad.

Source::

https://energy.economictimes.indiatimes.com/news/renewable/sjvn-plans-to-develop-10000-mw-solar-projects-in-rajasthan-over-5-years/89443468

ReNew Power commissions Gujarat's first wind-solar hybrid project

New Delhi: ReNew Power on Tuesday said it has commissioned Gujarat's first wind-solar hybrid project at the Chlor-Alkali unit of Grasim Industries in Bharuch, Gujarat.

According to the official press release, the first phase of the hybrid project, with 17.6 MW commercial-scale wind-solar, commenced operations last week and is expected to generate about 80 million units of renewable energy every year, mitigating about 75,000 tonnes of carbon emissions annually.

It said that the partnership will expand further with an additional 16.68 MW, which will be commissioned in the next financial year, as part of the second phase.

"As India strives to achieve net-zero by 2070, large-scale adoption of renewables by corporate India is key. With corporations increasingly harnessing renewable energy, ReNew aims to develop about 250 MW of wind-solar hybrid projects in Gujarat for commercial and industrial consumers, like we have just done at Vilayat, Bharuch," said Mayank Bansal, chief commercial officer, ReNew Power.

It added that the project is being developed by ReNew Green Solutions, the B2B arm of ReNew Power. Both the parties have entered into a 25-year PPA, which will see the project supply power for the plant at Vilayat, Bharuch, via an open access mechanism.

Once both phases are commissioned with a combined capacity of 34.28 MW, the partnership is expected to generate a total of about 160 million units of renewable electricity annually, mitigating a cumulative 150,000 tonnes of carbon emission a year.

The firm added that both phases together have a total investment of about \$51 million through an equity partnership.

Source::

https://energy.economictimes.i ndiatimes.com/news/renewable /renew-power-commissionsgujarats-first-wind-solarhybrid-project/89429363







GE Renewable Energy opens hybrid factory in Vallam, Tamil Nadu



Chennai: GE Renewable Energy has announced the opening of a new renewable hybrids factory in Vallam, near Chennai. The site employs 250 employees including 20 women.

"As the industry and customers' demand dispatchable renewable energy to navigate the energy transition, the need for hybrid systems is increasing exponentially. This facility that has been set up following the lean principles of reducing waste and improving productivity and is well suited to strengthen GE's place in the hybrids space," said Prakash Chandra, Renewable Hybrids CEO, GE Renewable Energy.

The Chennai factory will make the flexinverter and flexreservoir products from GE's newly-launched flex portfolio. "The site is centrally located and connected to national highways, airports, and seaports and the factory will be able to fully produce and integrate systems at the site, which reduces the time taken at site and helps create more value for customers," the company said in a statement.

Source::

https://energy.economictimes.indiatimes.com/news/renewabl e/ge-renewable-energy-opens-hybrid-factory-in-vallamtamil-nadu/89419059

UNEP signs MoU with Mah govt for implementing climate change actions

New Delhi: The UN Environment Programme (UNEP) has signed a Memorandum of Understanding (MoU) with the Maharashtra government to support its 'Majhi Vasundhara' campaign, an initiative with regard to the energy and environmental dimensions of sustainable development.

"The beginning of a new partnership between UN Environment Programme and the Government of Maharashtra will support the state in the implementation of climate change mitigation and adaptation measures," said a statement from UN office on Saturday. The MoU was signed on Friday.

Majhi Vasundhara' (literally, My Earth) is an initiative of the Government of Maharashtra's Environment and Climate Change Department to empower citizens with knowledge on the impacts of climate change and environmental issues and to encourage them to make a conscious effort towards improvement of the environment.

Speaking for the government of Maharashtra, Cabinet Minister of Tourism, Environment and Protocol, Aditya Thackeray said: "We should start to consider all possible avenues to get to Net Zero at the earliest. Over the next few months, Maharashtra will evaluate the investment prospects that will be required to steer Maharashtra's economy towards net zero. We have an imperative to act now."

UNEP will support the state in educating and mobilising youth on plastic pollution and marine litter through UNEP's Tide Turner Challenge across all educational institutes in the state of Maharashtra. Under the partnership, UNEP will support the Maharashtra government on various clean energy initiatives and in its efforts to develop a strategy for carbon neutral development in line with the Government of India's vision.

"The time is right for Maharashtra to lead the drive in a clean energy transition with its recent renewable energy policy being an important step.

This can pave the way for industry to make this shift, alongside the financing opportunities that are coming in tandem. Clean energy, and sustainability as a whole, is growing as an opportunity for industry. "There is a global trend in which frontrunners are occupying a niche in different markets, not just in the energy sector, but in sectors such as transport, agriculture, electronics, chemicals, buildings and construction, textiles, to those taking advantage of what a circular plastics economy can offer. Maharashtra is well placed to take advantage of this transition," said Director, Economy Division, UNEP, Sheila Aggarwal-Khan.

"In this Decade of Action to achieve the Sustainable Development Goals, we are pleased to see this collaboration between UN Environment Programme as a member of the UN Country Team in India and the Government of Maharashtra, which will help inculcate climate consciousness and green values across communities and especially the youth. This is an important step to enhance sustainable interaction between people and their environment, aligning respect for the Earth with prosperity," Shombi Sharp, UN Resident Coordinator in India, said.

The UNEP is the leading global voice on the environment. It provides leadership and encourages partnership in caring for the environment by inspiring, informing and enabling nations and peoples to improve their quality of life without compromising that of future generations.



https://energy.economictimes.indiatimes.com/news/renewable/unep-signs-mou-with-mah-govt-for-implementing-climatechange-actions/89377335





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