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DECEMBER 2020

VIEW POINT

Greetings of National Energy Conservation Day!

The 14th December, the National Conservation Day has seen increased activities this year, mostly webinars. SEEM chapters also got their acts together to hold awareness sessions virtually.

A common perception appears to be that energy, resource constraints, crisis and several energy imperatives, which hog headlines now, are relatively a recent phenomenon. But a bit study of human history may reveal that energy imperatives, pressing now, started shaping in our civilization ever since the human beings started walking on feet.

Nearly 200 centuries after homo sapiens had evolved, the bipedalism was indeed a breakthrough about ten thousand years ago. This newfound 'technology' converted the mankind from foraging tribe to agrarian community. That was the age when mankind first time thought of conserving and storing the energy. The use of two hands enabled the mankind to gather food which is required for its sustenance and for consumptions in future also.

The farming at initial stage, with the help of human energy input, was inefficient and inadequate to feed the growing population. So, the need to grow more, grow varieties of food prompted the human intellect to invent tools. Firstly the stone and gradually the metal tools were invented-bronze first and iron later. This gave rise to use of energy for heating ore to separate metals and convert them to different shapes of tools and weapons. Then the man started harvesting energy from nature such as hydro power, wind power for energy requirements of milling, grinding oil extracts etc. That pre-industrial era saw the extensive use of wood as source of energy. The price of wood started soaring as the wood was also required in large quantity for ship building. The quest for more efficient fuel led to discovery and large scale excavation and use of coal as fuel. Meanwhile that way the stage was getting set for the ushering in of industrial age. The inventions of steam engine, engine based automobile, electric motor, electric bulb and aero plane, between the years of 1700s to 1900s, transformed humanity to industrialized civilization.

Industrial age found extensive use of fossil fuels which were favoured because of high energy density and more efficient energy conversion technologies. The energy efficiency was in demand as labour cost was increasing. Then came the successive oil shocks in late 1900s which set the world to think on energy conservations, energy efficiency and of course the alternative energy. The drivers of these imperatives at that time were economic considerations.

Cut forward to present days, the drivers have changed to environmental emergency, climate change and growing global consciousness and awareness on these issues. This way the different set of enablers is emerged which is catalyst for adoptions of the energy imperatives. These enablers are largely information, communication, technology (ICT), IOT, big data, and circular economy.

Thus we can see that the energy transitions have taken place at different points of history which have shaped our culture and civilization with different sets of drivers and enablers. New capabilities of mankind, along with the new drivers and enablers, empower us to embrace same energy imperatives like-energy efficiency, energy conservation and renewable energy in their contemporary versions to bring about another transition.

These transitions may oversee yet another transformation in civilizations and culture of human history.

G Krishnakumar
Immediate Past National General Secretary &
Chief Operating Officer



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REPORT

SEEM Kerala Chapter Celebrated National Energy Conservation Day 2020

SEEM Kerala Chapter Celebrated the National Energy Conservation day on 14th December 2020. As a part of this the Chapter organized a webinar on the same day at 06:00 PM through Zoom in Association with Institution of Engineers (India) Kerala State Centre. Mr. G. Krishnakumar, Immediate Past General Secretary, SEEM delivered the Lecture on "Energy Conservation". Members from SEEM Kerala Chapter participated in the webinar.

SEEM Maharashtra Chapter Celebrated National Energy Conservation Day 2020

SEEM Maharashtra Chapter Celebrated the National Energy Conservation day on 14th December 2020. As a part of this the Chapter organized a webinar on the same day on 05:30 pm. SEEM National President Dr. C S Azad welcomed the participants and introduced about SEEM. Webinar coordinated by Mr. Sharad Gaharana, Member, Maharashtra Chapter and vote of thanks by Dr. Mohan Khedkar, Chairman, SEEM Maharashtra Chapter. Different topics are covered by the Members of SEEM Maharashtra Chapter during the webinar as follows:

1. 7 types of energy wastages & identifying energy saving opportunities thereof Energy Audit Methodology - *Mr. Puneet Hegde/ Mr. Harish Kathaley*
2. Performance optimization and Energy Audit of Power Plants – *Dr. Anil B Onkar*
3. Energy Conservation Case Studies in Captive power plants – *Mr. Sunil Dange*
4. Variable Frequency drives for Energy Savings – LV&HV / ESCO Methodology for Energy Efficiency project implementation – *Mr. Gaurang Bhatt*

SEEM Member joined in PCRA

SEEM Tamilnadu Chapter Secretary Mr. M Srinivasan joined as Sector Expert – Industry in PCRA-Southern Region, Chennai. Wishing him all the success.



SEEM Kerala Chapter Chairman has been elected as the chairman of ISTD

Congratulations to Mr. Mohammed Shereef, SEEM Kerala Chapter Chairman for his new engagement as the chairman of the Indian Society for Training and Development (ISTD).

IN BRIEF




ISTD office-bearers elected

THIRUVANANTHAPURAM
E. Mohammed Shereef (left) has been elected chairman of the Trivandrum chapter of the Indian Society for Training and Development (ISTD) and U.S. Paul Russel as honorary secretary. Other office-bearers were also elected.

ISTD office-bearers:
Indian Society for Training and Development (ISTD), Trivandrum Chapter, has elected new office-bearers. E Mohammed Shereef is the chairman and U S Paul Russel is the secretary of the new managing committee. K Balan is the vice-chairman and Shibulal A L is the treasurer. K S Chandrasekhar and P Mohanan Nair were elected as national council members.

A panel discussion on "Energy Sector: Opportunities for Young Engineers"

The online panel discussion on "Energy Sector: Opportunities for Young Engineers", was organized from 7:00 PM – 8:00 PM on 28th November 2020.

This online event was organized by SEEM Kerala Chapter and Co-hosted by the SEEM student chapter, Amal Jyothi College of Engineering, Kanjirappally.

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Meeting with SEEM National Council and Andhra Pradesh – Telangana Chapter Committee was held on 05th December 2020

Meeting with SEEM National Council and Andhra Pradesh – Telangana Chapter Committee was held on 05th December 2020. The Meeting was started with the agenda under the leadership of Mr. G Krishnakumar, Immediate Past General Secretary and COO-SEEM. The Agenda included the review of chapter activities/plans, SEEM National Energy Management Awards, Memberships; and suggestions for strengthening the organisation. Mr. UVK Rao, Immediate Past President of SEEM shared his thoughts and gave guidance & vision for making the APT Chapter one of best among all SEEM Chapters. He emphasised on sharing of good practices across chapters, disciplined & strategic way of working and shown confidence on the strong committee lead by Mr. G. Subramanyam who is the winner of Energy Award in three times, Patron Mr. R. Gopalakrishna and Mr. R. Virendra who are the well-known leaders in the industries and in energy community.

Chapter Chairman Mr. R. Virendra expressed that every members need to have visibility on SEEM activities and understand the benefits. Mr. G. Subramanyam and Mr.R.Gopalakrishna shown confidence on the certified professionals in AP & Telangana to achieve many milestones and the significant growth of this chapter. MR. Muthukumaran, SEEM Hyderabad Treasure and Mr. Srikanth, Joint Secretary explained the efforts and expressed their views to committee. Secretary Pravin Todkar shared his own success story of being a SEEM member. All committee members firmly agreed on improvement actions and plans and charted out the actions. Vote of Thanks expressed by Mr.R. Virendra and meeting concluded in positive notes. Meeting Recorded by Chapter Secretary Mr. Pravin Todkar.



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This event aimed to explore the diverse opportunities in the energy sector by bringing together exceptional professionals with expertise and competencies in this domain. This panel discussion was an ideal platform to gain awareness and insights and helped to open up a window of opportunities for engineers who have an interest in this area.

SEEM National President Conferred with "Energy Innovator of the Year 2020 International Award.

SEEM National President Mr. M C Jain has felicitated with prestigious International Award "Energy Innovator of the year 2020 for Asia subcontinent region by Association of Engineers, Atlanta (USA). He is a reputed Energy Auditor/Consultant and provides the services on National Level for reducing the Green House Gases Emission from Industries like Steel plants, Cement plants, Thermal Power plants, Power distribution companies, Fertilizer Industries and another sector. He has already contributed in saving of more than 25000 tons of oil equivalent and reduction in carbon emission by 1 lakh metric tons. He is working on the program of NMEEE (National Mission of Enhanced Energy Efficiency) under national Mission on climate change which is being operated and controlled by Prime Minister's Office (PMO).

He has already been Awarded the State Energy Conservation Award by Govt. of Chhattisgarh and National Energy Management Awards 2016 by SEEM India and felicitated with Award for Innovative business model in the year 2018 by Chief Minister of Government of Chhattisgarh.

At present, He is the National President of SEEM India having state chapters all over the country. He is a Fellow Member of IEI, India, Member of IAEE, Atlanta, USA, Recognised Energy Auditor by Ministry of Energy and public Utilities, Govt. of maturities.

He is "Accredited Energy Auditor" Empanelled under Energy Conservation Act 2001 by Bureau of Energy Efficiency, Ministry of Power, Govt. of India.

Apart from the Professional Achievement, Internationally he is very active in social work, He is Chairman of Blind School Nayandeep Vidya Mandir, a Charitable Residential School for Blind Children run by Rotary Charitable Trust, Bhalai. He is also President of Azad Higher Secondary School Maroda where all the slum area boys and girls are being educated. He is a Trustee of Jain Trust and Ma Sharda Charitable Trust Bhalai. He also a Golden World record holder for inspiring for "Body Donation" of 32 members of his own family together.



भिलाई के एमसी जैन को भिला अंतर्राष्ट्रीय पुरस्कार

कार्बन उत्सर्जन में कमी लाने में दिया योगदान

भिलाई नगर, प्रतिष्ठित एनर्जी कंसल्टेंट, ऑडिटर एवं नगर के माने माने समाजसेवी एमसी जैन को अंतर्राष्ट्रीय पुरस्कार एनर्जी इनोवेटिव ऑफ दी ईयर 2020 से सम्मानित किया गया है. उद्योगों में कार्बन उत्सर्जन एवं ईंधन की खपत में कमी लाने के क्षेत्र में उनके महत्वपूर्ण योगदान के लिए उन्हें यह पुरस्कार एसोसिएशन ऑफ एनर्जी इंजीनियर्स, एटलांटा (यूएसए) द्वारा प्रदान किया गया. एक प्रतिष्ठित ऊर्जा सलाहकार, ऑडिटर के रूप में वे प्रभाव संयंत्रों, सोमेट संयंत्रों, थर्मल पावर संयंत्रों, विद्युत वितरण

उपलब्धि कार्बन उत्सर्जन में कमी लाने में योगदान के लिए जैन को मिला सम्मान. MC Jain conferred with 'Energy Innovator of the year 2020' international award

TheHitavada Raipur City Line | 2020-12-11 | Page-6 hitavada.com

M C Jain feted with 'Energy Innovator of the Year 2020'

MC Jain receiving the award virtually from AEE, Atlanta, USA. MC JAIN of Bhalai has been felicitated with prestigious International Award 'Energy Innovator of the Year 2020' for Asia Subcontinent region by Association of Engineers, Atlanta (USA). Presently, he is National President of SEEM, India having state chapters in all over country. He is a fellow member of Institution of Engineers (India) Member International Association of Energy Engineers, Atlanta USA. Apart from professional achievement, Jain is also very active in social works and holds a Golden Book World Record for inspiring for 'Body Donation' of 32 members of his own family together.

भिलाई भास्कर 11-12-2020

कार्बन उत्सर्जन में कमी लाने में दिया योगदान

कार्बन उत्सर्जन में कमी लाने में दिया योगदान. उद्योगों में कार्बन उत्सर्जन एवं ईंधन की खपत में कमी लाने के क्षेत्र में उनके महत्वपूर्ण योगदान के लिए उन्हें यह पुरस्कार एसोसिएशन ऑफ एनर्जी इंजीनियर्स, एटलांटा (यूएसए) द्वारा प्रदान किया गया. एक प्रतिष्ठित ऊर्जा सलाहकार, ऑडिटर के रूप में वे प्रभाव संयंत्रों, सोमेट संयंत्रों, थर्मल पावर संयंत्रों, विद्युत वितरण



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Panel discussion on “Building energy Efficiency for sustainable tomorrow” on 22nd December 2020

The next panel discussion is jointly organized by Energy Manager Magazine and Energy Management Centre, Kerala on the topic “Building energy Efficiency for sustainable tomorrow” on 22nd December 2020 at 10:30 am TO 12:00noon

emc **energy manager**

Panel Discussion

Building Energy Efficiency for Sustainable Tomorrow

Keynote Address **22 December 2020, Tuesday**
10:30 AM - 12:00 PM

Ms. Reshma Singh
Program Director,
US Department of Energy's IMPEL Program

Presentations

Enhancing Building Energy Efficiency through Automation & IoT

ECBC 2017 and Beyond

Mr. Aalok A. Deshmukh
Co-founder and MD,
Super Human Race Pvt. Ltd

Mr. Anurag Bajpai
Director,
Green Tree Consulting Group

Moderator: **Prof. Dr. Mohan Khedkar**
Chairman, SEEM Maharashtra Chapter

SEEM NATIONAL ENERGY MANAGEMENT AWARDS 2020

Please **CLICK HERE** to register

Application date extended to 15th January 2021

Milma celebrated the National Energy Conservation day 2020 on 14th December 2020





NEWS

Electric vehicle market in India expected to hit 63 lakh units per annum mark by 2027: IESA

The electric vehicle (EV) market in India is expected to hit over 63 lakh unit mark per annum by 2027, according to a report by India Energy Storage Alliance (IESA). As per the findings of the report, which covers the present scenario and forecast of electric vehicle (EV), EV batteries and the public charging infrastructure market in the country, demand for the batteries is also going to rise substantially over the same period.



"In the base case scenario, the EV market is expected to grow at CAGR of 44 per cent between 2020-2027 and is expected to hit 6.34-million-unit annual sales by 2027," the IESA report said.

Similarly, the annual battery demand is forecasted to grow at 32 per cent to hit 50GWh by 2027, of this, 40 plus GWh will be on lithium-ion batteries, it added.

"The estimated battery market potential is USD 580 million in 2019 and is forecasted to grow to USD 14.9 billion by 2027," it noted.

The EV sales in India stood at 3.8 lakh units in 2019-20, and the EV battery market stood at 5.4GWh during the year. The electric two-wheelers were the highest selling in the entire segment last fiscal.

As per the report, low and medium-speed electric two-wheelers (up to 40 kmph) with conventional lead-acid batteries were dominating the market.

"With more companies getting [FAME-II](#) certification in 2020, sale of high-speed electric two-wheelers is expected to increase rapidly," it added.

In terms of battery technology in the electric two-wheeler segment, lead-acid technology will be completely out of the market in the next five years, it said.

Elaborating on the electric bus market the report noted that the demand in the vertical is expected to be driven with subsidy support from the Central government due to high upfront cost.

Going forward, expansion is likely based on viability and access to financing, it added.

Besides, the electric e-rickshaw market is poised for growth in the upcoming years as many new markets such as Raipur, Indore, Bhopal, have opened last year.

Moreover, the South and North East markets are also expected to open in the upcoming years, the report said.

It noted that the high-speed electric three-wheeler market is currently at a very nascent stage and has opened mainly at the B2B or in the cargo segment due to the requirement of performance vehicles.

Low-cost financing is a key constraint hindering the growth of this segment, the report said.

"Going forward, the industry believes that the market will grow very rapidly in the upcoming years as many state governments are planning to convert the existing fleet of autos into electric under their EV policies," it added.

Source: <https://energy.economictimes.indiatimes.com/news/power/electric-vehicle-market-in-india-expected-to-hit-63-lakh-units-per-annum-mark-by-2027-iesa/79909131>

Make in India: BHEL plans to shift Rs 3,000 cr worth of annual imports to local vendors

New Delhi: Bharat Heavy Electricals Ltd (BHEL), the country's largest power equipment manufacturer, is working on a plan to shift Rs 3,000 crore worth of imports to vendors in the local Indian market as part of a larger move towards Make in India.

"BHEL is interested in indigenization of more than 300 items across nine categories, currently imported by our 16 manufacturing units, valued at over Rs 3,000 crore per annum," BHEL Chairman and Managing Director Nalin Singhal said in an interaction with local vendors from the MSME industry.

He said BHEL is looking beyond power equipment into transportation, infrastructure for Oil & Gas, Defence and Aerospace and other sunrise sectors and the company intends to offer indigenous products with indigenous supply chains.

The interaction was the first in a series of online workshops being conducted by BHEL with the Department of Heavy Industries (DHI). The idea is to reach out to local industry including MSME vendors as potential partners and develop self-reliance in manufacturing.

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The first event witnessed participation from senior representatives of industry chambers and the leaders of the MSME industry who discussed steps for increased cooperation in indigenous manufacturing and better utilization of assets for technology and product development.

It was chaired by Heavy Industries secretary Arun Goel who expressed concern over the pandemic's impact on economies across the world. "Lockdowns across geographies have resulted in massive supply chain disruptions and this has made many countries rethink on overdependence on imports and the need for being self-sufficient," he said.

The event was also attended by D K Singh, Additional Secretary & Development Commissioner, Ministry of MSME, who called upon all the 18 MSME technology centres to collaborate with BHEL on boosting local manufacturing.

Source: <https://energy.economictimes.indiatimes.com/news/power/make-in-india-bhel-plans-to-shift-rs-3000-cr-worth-of-annual-imports-to-local-vendors/79853149>

Western Railway bags top honours from power ministry for energy conservation in 2020

MUMBAI: The Western Railway (WR) won the top honours in 'transport' category for energy conservation in 2020 from the Bureau of Energy Efficiency (BEE), ministry of power.

WR chief spokesperson Sumit Thakur said that the department was committed to provide clean and green transportation to its commuters. "In fact, WR bagged a total three prestigious National Energy Conservation Awards (NECA) in 'Transport' and 'Building - government offices' categories for 2020. It got first prize in the Transportation category along with first and third prizes in buildings category for Divisional Railway Manager's offices at Bhavnagar and Rajkot respectively," he stated.

The top honour has been given to WR for significant improvements in energy conservation by adopting various measures such as:

- During 2019-20, electrification of 664 km was done on WR, which is highest on Indian Railways. The introduction of electric traction reduces the consumption of diesel and improves efficiency of transportation, reducing the carbon footprint.
- WR is operating 67 regular train pairs with Head-On Generation and stopped the use of diesel generator set for power supply to coaches, thus achieving a net saving of about Rs 50 Crores.
- 8.67 MWp capacity rooftop solar plants have been provided at various railway stations, office and service buildings. These plants have generated 5.47 million units of green energy resulting in a net saving of Rs.2.25 crores per annum.

* Energy-efficient 5-star rated electrical appliances are used extensively in office and service buildings. Energy-efficient LED lights have been installed at all the stations, service buildings & residential quarters resulting in saving of about Rs. 12 crores per annum.

* Introduction of three-phase technology and improvement in driving techniques has helped in 15% improvement in SEC, a net saving of about Rs.15 crores per annum.



Source: <https://energy.economictimes.indiatimes.com/news/power/western-railway-bags-top-honours-from-power-ministry-for-energy-conservation-in-2020/79832725>

MUFG gets Green Certification for \$333 mn Soft Bank's financing

MUMBAI: MUFG Bank (MUFG) has acted as sole green structuring advisor for a \$333 million financing deal for SoftBank's largest solar project in India. This marks the first green certification of a solar project loan for both the borrower and the country, the bank said in a release.

It underscores both MUFG's sustainable financing capabilities as well as commitment towards partnering clients in their environmental, social and governance (ESG) objectives, the lender said in a release.

The 900 megawatt-DC solar farm in the Phalodi-Pokhran Solar Park in the State of Rajasthan, India, is the seventh and largest project of its type in line to be commissioned by SB Energy Holdings Limited (SB Energy), a majority-owned subsidiary of SoftBank Group.

MUFG also acted as original mandated lead arranger and lender, bookrunner, facility agent, intercreditor agent, account bank and hedging bank. This is the third project financing undertaken by MUFG for Softbank in India. The transaction closed in August, and with the bank's assistance, attained green certification on 22 December 2020.



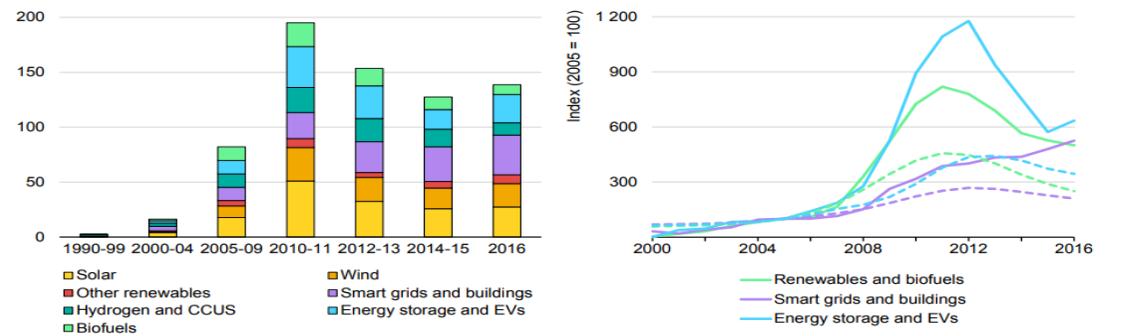
Source: <https://energy.economictimes.indiatimes.com/news/renewable/kkr-launches-platform-to-acquire-renewable-energy-assets-in-india/78931595>



NEWS

INFOGRAPHIC: India's energy patenting increased sharply since 1990s

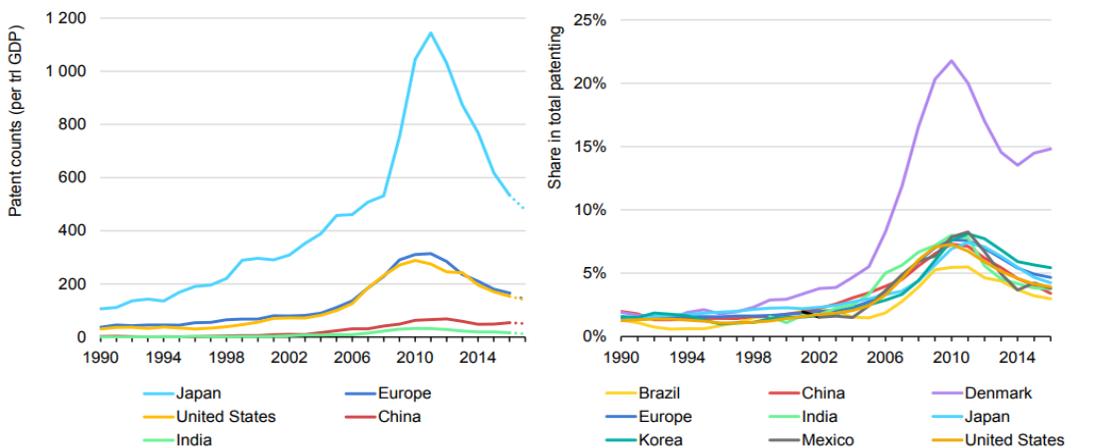
Number of Indian patents granted in selected low-carbon energy technologies (left) and benchmark against global trends (right).



Notes: Patents granted in a selection of CCMTs related to low-carbon energy technologies (e.g. renewables, hydrogen, batteries and EVs, and efficiency), filed in two or more geographical offices. Geographical distribution by inventor country of residence. Right-hand graph: index (2005 = 100) of three-year moving average; dotted lines for global trends; solid lines for India. Source: IEA analysis (2020) based on OECD data (OECD, 2020D).

However, it added that there was a concerning decrease since the early 2010s in international patenting activity for clean energy technologies, including relative to technologies in other sectors. Patents are called international when patent offices in at least two countries have protected the invention.

Number of international low-carbon energy patents (left) and as a share of all technology patenting (right) in selected countries



Notes: Patents in a selection of CCMTs related to low-carbon energy technologies (e.g. renewables, hydrogen, CCUS, storage and batteries, electric vehicles (EVs), biofuels, buildings energy efficiency and nuclear), filed in two or more geographical offices. Right-hand figure: three-year moving averages. Geographical distribution by inventor country of residence. In this figure, "Europe" includes EU member countries and Norway. Source: IEA analysis (2020) based on OECD data (OECD, 2020D). See also IEA (2020b).

Source: <https://energy.economictimes.indiatimes.com/news/renewable/infographic-indias-energy-patenting-increased-sharply-since-1990s/79852578>

UNDP's Human Development Report highlights high finance cost of renewable energy projects in India

New Delhi: The cost of finance accounts for the largest share of historically low solar tariffs in India, which is about 50-65 per cent of renewable energy tariffs, according to the Human Development Report (HDR) 2020 released recently. New Delhi: The cost of finance accounts for the largest share of historically low solar tariffs in India, which is about 50-65 per cent of renewable energy tariffs, according to the Human Development Report (HDR) 2020 released recently.



It said that since a high share of the tariff is the cost of capital, even big declines in equipment costs could lower tariffs only so much.

"Large solar parks were attractive to international investors, and when the bids were backed by Central and state government guarantees or credible offtakers, tariffs fell sharply. The government aimed to improve the availability and pricing of project debt finance over time, facilitating lower cost investment," it said.

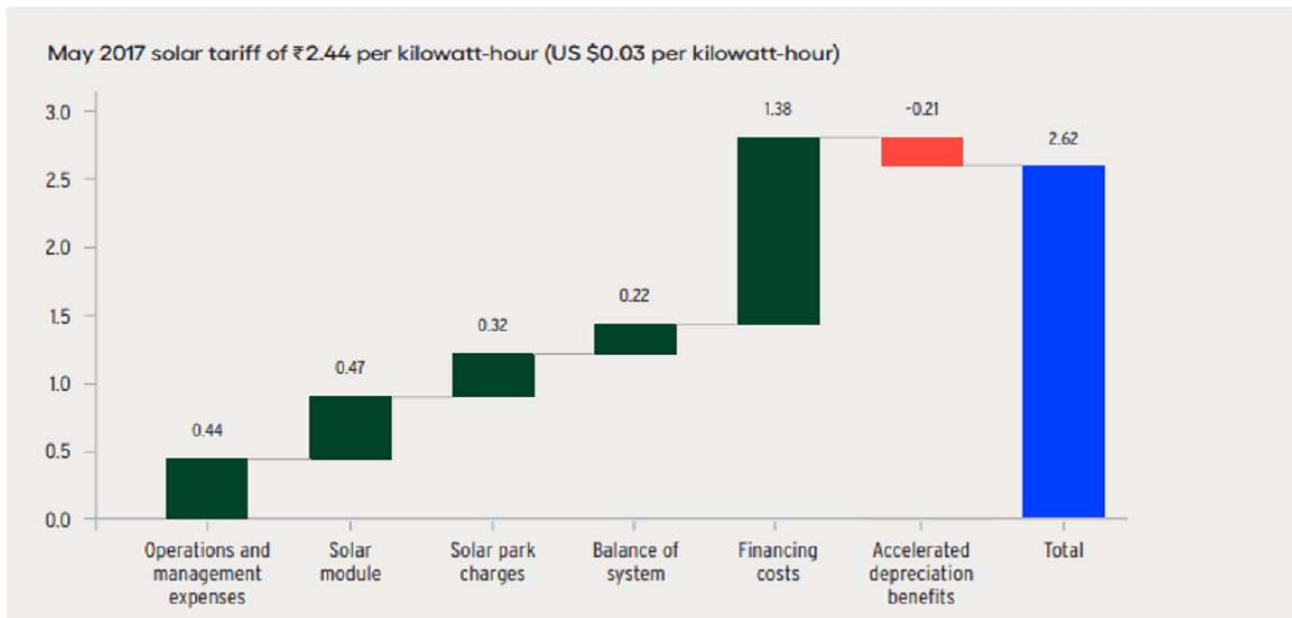
The HDR 2020 report titled 'The next frontier Human development and the Anthropocene' released by the United Nations Development Programme (UNDP) argues that human development can be advanced through incentives and regulation. It said that incentives are required to shift finance towards low-carbon energy and gave an example of India's falling solar tariffs in this case.

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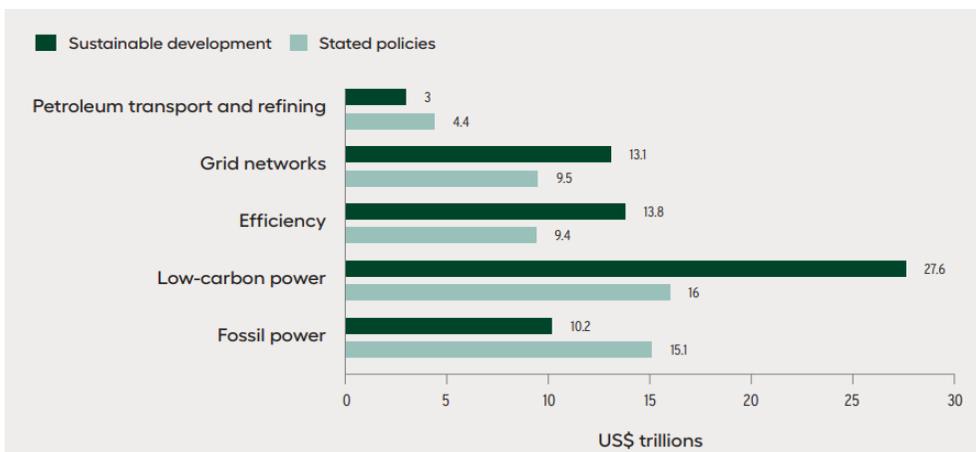
The cost of finance accounts for the largest share of historically low solar tariffs in India



Note: Based on estimates of the levelized cost of energy of an electricity generation asset, which is the net present value of the unit cost of electricity over the lifetime of an asset. Several factors determine the levelized cost of energy or tariff of grid-connected solar power plants. This figure is the component-wise breakdown of the solar tariff in India in 2017. It includes operations and management, solar module, solar park charges, balance of system (costs related to civil works, mounting structures and other preoperative expenses), and financing costs and accelerated depreciation benefit (government incentives that lower the tax burden in the early years of a project).

Source: CEEW 2020.

The cost of finance accounts for the largest share of historically low solar tariffs in India



Source: Fickling 2020.

Incentives could lower the cost of finance and improve access to domestic and foreign institutional capital. It added that options included pooled de-risking of projects across different geographies, solar parks that allow developers to adopt a plug-and-play model and shorten construction timelines, and greater transparency about policies, deployment and performance.

"Like norms... incentives and regulation are powerful and by preventing or promoting specific actions, they influence behavior directly and also operate indirectly by reinforcing norms or signaling their change," it said.

According to the report, in order to advance human development through incentives and regulation there are three areas of opportunity: In finance, to direct resources toward investments that reduce planetary pressures; in prices, to better capture social and environmental costs; and in international collective action.

Regarding current market prices, it said they did not reflect the social costs of planetary pressures, distorting economic decisions and was leading to an overuse of resources and excessive environmental degradation relative to what would occur if prices reflected those costs. Even worse, government subsidies compounded the distortions.

"Subsidies for fossil fuels are not only a large fiscal burden, at over \$317 billion in 2019, but they also encourage behaviour that impedes the transition to renewable energy sources, with direct and indirect costs to people amounting to \$4.7 trillion globally in 2015 and \$5.2 trillion in 2017," it said

The report added that eliminating subsidies would have reduced global carbon emissions by 28 per cent and deaths due to fossil fuel air pollution by 46 per cent in 2015.

"Financial and monetary authorities are playing a central role during the COVID-19 pandemic. Their choices shape incentives that can encourage a transitioning to a net-zero emissions economic system and reducing socioeconomic inequalities," UNDP said in its report.

According to the report, in 2018, lower-middle-income and low-income countries, with over 40 per cent of the world's people, accounted for less than 15 per cent of renewable energy investment. While high-income countries, with just over 15 per cent of the population, accounted for more than 40 per cent.

It said that the difference came largely from a lack of access to funding in developing countries, which in turn had major impacts on the price and competitiveness of green energy.

Source: <https://energy.economicstimes.indiatimes.com/news/renewable/undps-human-development-report-highlights-high-finance-cost-of-renewable-energy-projects-in-india/79842923>



NEWS

SEEM NATIONAL ENERGY MANAGEMENT AWARDS 2020



Inspiring Energy Efficiency

Instituted in 2014, SEEM National Energy Management Awards recognize and support best efforts taken by various sectors for improving energy efficiency, thereby supporting India's journey towards climate change mitigation and sustainable development

SEEM National Executive Council invites applications for the prestigious SNEMA 2020

Unlike other awards, SNEMA do not focus on the percentage of energy saving achieved during the assessment year. Instead, systematic actions towards sustainable energy performance are considered for recognition. This approach ensures that assessment does not get skewed based on production levels.

Who Can Apply?

Applications are sought for the following categories

Individuals

- Certified Energy Manager
- Certified Energy Auditor

Award Category Best Performance Awards

Applications in the category of individuals should be made separately irrespective of the application submitted by organisations in the other categories

ENCON Promoters

- Energy Service Companies
- NGOs
- Government agencies
- Registered trusts
- Energy audit firms etc.

Award Category Best Performance Awards

Who Can Apply?

Production, Manufacturing & Service Sector

INDUSTRIES

- | | |
|------------------------|------------------|
| • Aluminium | • Cement |
| • Chlor Alkali | • Pharma |
| • Fertilizers | • Petrochemicals |
| • Steel | • Chemicals |
| • Textile | • Glass |
| • Automobile | • Tea |
| • Consumer goods | • Tyre |
| • Food processing | • All others |
| • Pulp & paper | |
| • Refinery | |
| • Sponge iron | |
| • Thermal power plants | |

Award Category Silver / Gold / Platinum

Any industry / facility can apply in this category irrespective of size / service / product

Who Can Apply?

Production, Manufacturing & Service Sector

FACILITIES

- Banking
- Airlines
- Railways
- IT/ITES
- Hotels
- Hospitals
- Malls
- Educational Institutions
- Business Centers
- Prints/Visual Media etc.

Award Category Silver / Gold / Platinum

Any industry / facility can apply in this category irrespective of size / service / product

Corporate Houses

- All Corporate or business houses in manufacturing / Services sectors

Award Category Best Performance Awards

SEEM NATIONAL ENERGY MANAGEMENT AWARDS 2020

Application date extended to 15th January 2021

Please **CLICK HERE** to register



NEWS

SEEM NATIONAL ENERGY MANAGEMENT AWARDS 2020

How to Apply

To apply for the awards please register in the pre-registration link for the 1st Level Assessment.

<https://forms.gle/SNEMA2020>

After PRE-REGISTRATION FOR 1st LEVEL ASSESSMENT, selected participants will be asked to submit the details for evaluation and a Unique Identification Code (UIC) will be issued

Upon receipt of the UID participants can submit all relevant documents along with application fee.

Fee

Corporate Houses	Rs. 30,000	+18% GST
Industries & Facilities	Rs. 12500	+18% GST
ENCON Promoters/ Energy Audit Firms	Rs. 5,000	+18% GST
Individuals	Rs. 2,000*	+18% GST

* 50% special discount in individual category for SEEM members

Application will be considered as complete only when the application form along with mandatory enclosures and fee are received at National award secretariat



Ms. Saranya Mohan

Coordinator - SNEMA 2020

+91 944 606 7607

awards@seemindia.org

Society of Energy Engineers and Managers
National Award Secretariat - SNEMA 2020
Dr. Azad, General Secretary
Plot No. 674, Block - I, Near Gaur Shopping Square, Govind Puram, Ghaziabad 201013
Delhi - NCR.

+91 471 - 2557607

+91 9446 067 607

awards@seemindia.org

www.seemindia.org

How to Apply

Mode of Payment

- Online payment through our website
<https://rzp.io//seem-payment>
- NEFT / RTGS Transfer to

Acc. Name : Society of Energy Engineers and Managers

Bank Name : State Bank of India

Branch Name : Kannammoola

A/c No. : 37048528759

IFSC Code. : SBIN0008293

Branch Code : 8293

Processing of Applications

- Processing of the applications will be start Soon
- Applications will be reviewed by a jury comprised of eminent experts in the Indian Energy Sector.
- Clarifications / Validations by the jury could be part of the review process.

All queries can mailed to :

awards@seemindia.org

addressing Mr. Jayakumar Nair (Chairman - SNEMA & Vice president-SEEM - SEEM)

Application date extended to 15th January 2021



SNEMA Highlights

<https://youtu.be/rcxKpwgjiyw>



NEWS

SPONSORSHIP DOSSIER

SEEM NATIONAL ENERGY MANAGEMENT AWARDS 2020

Society of Energy Engineers and Managers (SEEM) is a national network of energy professionals in India, established in 2005 as a not-for-profit society to support and inspire the cause of energy efficiency in various sectors. SEEM network is spread across 22 Indian states with 15 chapters and 7 units, and more than 800 members. Since its inception, SEEM has been carrying forward its objective through international, national and state level programs, publications including exclusive technical magazine "energy manager", monthly e-newsletter "SEEM News", and other initiatives.

SEEM proposes to organize its 6th edition of SEEM National Energy Management Awards 2020 Ceremony in New Delhi during September 2020

The award ceremony will be attended by about **500-600 energy auditors and managers** from across the country, representatives from large/small industries and government agencies like SDAs, DCs and other working energy professionals from various industries.

This event is being held as part of the efforts to encourage and motivate Certified Energy Auditors, Certified Energy Managers, Energy audit firms, Industries and facilities who have made remarkable initiatives to promote energy conservation in Indian organizations during the year 2019 - 2020

SEEM India is organizing a training cum exposition program in tandem with the National Energy Management Awards Ceremony to familiarize genuine service/equipment system providers to an interested group of energy industry professionals. It is a felt need assessed by energy auditing fraternity that many genuine energy saving equipments, services and measurement devices and monitoring systems still remain unexposed to a large sections of energy professionals who still grope in dark or play into hands of black sheep.

We will be giving opportunity to 15-20 selected Energy Efficient Equipment /Energy Monitoring Equipment/ Energy Service provider during this function to present their product after an initial scrutiny of experts. Those who are willing to undergo this process of endorsement will be given an opportunity to show case their product through various Forums of SEEM (Such as Print Magazine, Web, Monthly news letter etc.) other than the venue where presence of more than 300 experts are assured, at a very reasonable cost.

SNEMA Highlights

<https://youtu.be/rcxKpwwgijyw>

We request you to be a part of the SEEM National Energy Management Award function by availing various sponsorship options as per the details given in the website and register.

We are keen to work out best option for your organisation, once we receive your preference at the earliest as to how you would like to exploit this opportunity. For leveraging branding, sponsorship and exhibition opportunities, write to awards@seemindia.org or call at 9446067607 / 0471-2557607.

For more details and register for sponsorship please click the link

<http://seemindia.org/sponsorship/>





SEEM Individual Memberships Fee & Benefits

Sl.No	Membership Category	Membership Fee	Annual Fee	Total Amount (Including tax)
1.	Annual Membership / Annual Associate Membership	Rs. 2500	Rs. 500	Rs. 3540
2.	Annual Fellowship	Rs. 3000	Rs. 1000	Rs. 4720
3.	Life Membership	Rs. 6750	Not Applicable	Rs. 7965
4.	Life Fellowship	Rs. 12,000	Not Applicable	Rs. 14160
5.	Student Membership	Rs. 500	Rs. 500	Rs. 1180

Who can join SEEM?

- BEE Certified Energy Auditor
- BEE Certified Energy Manager
- Engineers working in energy related field holding a position of high responsibility with minimum 20 years experience
- Any Degree/ Diploma holders working in the field of Energy Efficiency/ Energy Conservation/ Renewable Energy for the last two years
- Engineering students and students who would like to do research or undertake projects in the energy sector

Benefits to Members

- Opportunities to get your case studies published in SEEM print magazine "Energy Manager"
- Opportunities to publicize your efficiency initiatives in the monthly e-newsletter SEEM News
- Speaking / Presentation opportunities at various forums
- Opportunities to constructively participate in various discussions in the energy sector
- Opportunities to become a SEEM Trainer / Expert Faculty
- Opportunities to become a SEEM Mentor for Student Chapters
- Leadership and participation opportunities in various SEEM programmes
- Networking opportunities with many energy professionals from across the country
- Knowledge enhancement platform in the energy sector
- Right to cast vote at the SEEM Annual General body Meeting
- All communications, which includes: notices about meetings, invitation to events, announcements about the SEEM activities.
- Priority to participate in funded projects carried out by SEEM in the energy sector, on the terms and conditions appropriate to such projects
- Support for addressing relevant grievances

- An opportunity for cross-fertilization of ideas with access to lessons learnt by others

Discounts available to SEEM Members:

- Upto 50% discount on registration fee for seminars / workshops and other training events conducted by SEEM.
- Opportunity to attend workshops and trainings by third parties at special rates offered to SEEM Members
- A discount of 50% on priced publications brought out by SEEM
- Upto 50% discount on applications to SEEM National Energy Management Awards every year
- Discounts on any other programmes/ products or services offered by SEEM

Your membership kit includes:

- SEEM membership ID card
- SEEM Membership Certificate
- Subscription to SEEM print magazine Energy Manager
- Subscription to monthly e-newsletter SEEM News

Membership Categories & Eligibility

Category	Eligibility
Member	Energy Manager / Energy Auditor certified by Bureau of Energy Efficiency
Associate Member	Any diploma / degree holder who is working in the field of energy efficiency/conservation/ renewables for the last two years.
Fellow	Engineers working in energy related field holding a 'position of high responsibility' with minimum 20 years experience and who have been certified as Energy Managers or Energy Auditors by the Bureau of Energy Efficiency, Ministry of Power.
Honorary Fellow	Persons who are qualified to be Fellows invited to join SEEM as Honorary Fellows, subject to the approval of the Executive Council.
Student Member	Engineering students or students who would like to do research or undertake projects/studies in energy related fields.



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- ♦ energyⁿ manager is the only magazine in India that exclusively focuses on energy efficiency
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- ♦ Cover feature in each issue focus on one most appropriate contemporary topic on energy efficiency
- ♦ Guest editorial by renowned domain experts
- ♦ Articles contributed by leading personalities in the energy sector
- ♦ Published since January 2008 and circulated in print to more than 5000 readers
- ♦ Brought out by Energy Press, the publishing wing of the Society of Energy Engineers and Managers (SEEM), India

Readership Profile

- ♦ Accredited ESCOs & Energy Consultants
- ♦ Certified Energy Professionals
- ♦ Consultants, Planners and Architects
- ♦ Distributors and Marketing Agencies
- ♦ EE & RE Equipment Manufacturers
- ♦ Energy Intensive Industries (DCs)
- ♦ Engineering & Technical Institutions
- ♦ International Organizations
- ♦ Political & Executive decision makers
- ♦ Policy Bodies, NGOs

Editorial Profile

- ♦ Energy management
- ♦ Energy audit
- ♦ Energy financing
- ♦ Research and Innovation
- ♦ Best practices
- ♦ Case Studies
- ♦ Renewable energy
- ♦ Sustainable Living
- ♦ Global focus
- ♦ Focus India
- ♦ Events, and others

DATA

Title: energyⁿ manager
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