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India Smart Grid Forum

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August 2020

Indore City Adjudged the Cleanest City in India for the Fourth Time in a Row

Indore, Madhya Pradesh, India has been ranked India's cleanest city for the fourth consecutive year among cities with more than one million population by Swachh Survekshan 2020, the central government's annual cleanliness survey to promote sanitation in urban centres under the Swachh Bharat Mission.



Indore City, Madhya Pradesh, India

The survey's findings were based on assessments by field officers and citizens feedback on garbage disposal, open defecation, functionality and maintenance of community toilets and safe management of faecal sludge from the toilets and ensuring that no untreated sludge is discharged into open drains or water bodies. The survey was performed in January 2020 and was completed in 28 days, covering 4,242 cities, and saw the participation of 18.7 million citizens.

The Ministry of Housing and Urban Affairs is the nodal agency for the Swachh Bharat Mission, conducted its first survey in 2016, ranking 73 cities (Urban Local Bodies). To expand the coverage, the ministry conducted its second survey the following year, ranking 434 cities. In Swachh Survekshan 2018, the scale increased to 4,203 cities. In the 2019, 4,237 cities were covered and in the year 2020 - 4242 cities, 62 Cantonment Boards and 97 Ganga towns were surveyed.

This year, the ministry introduced a new category called Ganga Towns, ranking the cleanliness of towns situated along the river's banks. Among them, Varanasi in Uttar Pradesh (UP) was ranked the cleanest of towns with more than 100,000 population and Kannauj, UP, the first among towns with population of 50,000 to 100,000. In the category of cities with a population of less than 100,000, Karad, Maharashtra won the first position. Chhattisgarh was ranked the cleanest state of India in the category of states with fewer than 100 urban local bodies (ULBs) category. Jharkhand

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Indore City Adjudged the Cleanest City in India for the Fourth Time in a Row (Contd...)

was adjudged the cleanest state of India in the 100-ULBs category. Among cantonment boards, Jalandhar was rated the cleanest.

What Indore has done differently that other Cities can learn from Indore

The credit for the rapid improvement in the position of Indore as the cleanest Indian city goes to the spectacular waste management strategy of the Indore Municipal Corporation (IMC) which focuses on appreciating those citizens who have shown exemplary effort in tackling waste in their neighbourhoods. The best-performing citizens are even given a one-on-one with the city's mayor. The IMC also imposes a hefty fine on people who litter the city.

IMC follows a "binless city model" which included door-to-door collection and segregation of waste. All garbage collecting vans in Indore have separate partitions to segregate waste into organic and inorganic which helps in its disposal later on. Authorities also focussed on making Indore an open defecation free city. Moreover, citizens were encouraged to build compost pits at their homes so that they can dispose off the waste generated in an environment-friendly way. Waste segregation at source was made compulsory for households as well as commercial establishments. Dry waste goes to a material recovery centre for segregation and sale. Plastic is used to manufacture bricks or agriculture pipes. Wet waste is converted to manure at trenching grounds.

Rankings of cities over 1 Million population

CITY	SCORE
Indore	5647.56
Surat	5519.59
Navi Mumbai	5467.89
Vijaywada	5270.32
Ahmedabad	5207.13

Rankings of cities between 100k-1 Million population

CITY	SCORE
Ambikapur	5428.31
Mysore	5298.61
New Delhi (NDMC)	5193.27
Chandrapur	5178.93
Khargone	5158.36

IMC further encourages Indore people to take part in the waste management of the city. IMC also conducts competitions among institutions, hospitals, and other organizations to find groups who can come up with innovative ways of tackling the problem of waste.

All these steps not only made Indore stand first in the cleanliness ranking but also showed other cities a way to tackle the problem of waste management in creative ways. Indore is an inspiration for everyone on how to make our respective cities clean and a healthy place to live.

Source:

https://www.hindustantimes.com/india-news/indore-ranked-cleanest-city-fourth-time-in-a-row/story-YJNbYNKLNeyXVYOYMGHPAO.html

https://edtimes.in/how-indore-became-the-cleanest-indian-city-again-and-what-other-cities-can-learn-from-them/

Announcing Online Training Program on Artificial Intelligence and Robotics for Utilities and Smart Cities

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ISGF Welcomes Mr Yoshiro KAKU at NEDO, India



Mr Yoshiro KAKU
Chief Representative

NEDO
(New Energy and Industrial Technology Development Organization), India

Mr Yoshiro KAKU is the new Chief Representative of NEDO (New Energy and Industrial Technology Development Organization) New Delhi, India Office. NEDO is a national R&D agency of METI (Ministry of Economy, Trade and Industry, Government of Japan). The representative office in New Delhi plays an important role in coordination, information exchange and consultation for promoting India/Japan collaborative projects in such fields as energy management and saving, renewable energy, e-mobilities.

He has worked at METI since 2002. Prior to the position, he was engaged in policymaking regarding technological innovation such as the revision of Japan's Information Technology (IT) Strategy and Roadmap for UAVs (Unmanned Aerial Vehicles) including drones, which show future directions for application and development of such technologies. In addition, he contributed to rule amendment for effectively protecting trade secrets critical for strengthening industrial competitiveness.

He has also been involved in environment and energy related policies. He was a member of the study team for drafting Japan's Long-term Strategy under the Paris Agreement, which aims for realizing "a virtuous cycle of environment and economic growth" by disruptive innovation leading to drastic reduction of greenhouse gases. Moreover, he was in charge of policies for promoting waste disposal and recycling, and securing natural resources including rare metals, for which Japan depends on other countries.

Besides above, he was engaged and have experience in reconstruction of the area affected during March 2011 Great East Japan Earthquake.

Mr Kaku has graduated from the University of Tokyo, Faculty of Law, and earned LL.M. (Master of Law) from the University of Pennsylvania Law School. He was also a visiting scholar at the Berkeley Center for Law and Technology.

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Smart Grid Updates: Policy, Regulations & Standards

INDIA

Delhi Announces EV Policy, Proposes Incentives upto INR 150,000 for Electric Cars

The policy plans to boost the adoption of battery electric vehicles (BEVs) so they contribute to 25% of all new vehicle registrations by 2024

The Delhi government has issued the Delhi Electric Vehicle Policy, 2020, to boost the adoption of electric vehicles (EVs) in the national capital. The policy is valid for three years and aims to speed up the pace of EV adoption, primarily in the category of two-wheelers, public and shared transport vehicles, and goods carriers. The policy proposes financial incentives, tax, and fee waivers, charging and swapping infrastructure establishment, job creation, battery cycling ecosystem, and the creation of a non-lapsable 'State EV Fund. Under the policy, electric two-wheelers, e-rickshaws, and goods carriers (L5N and N1 vehicles) will receive purchase incentives of INR 30,000 (~USD 401), while electric cars would receive incentives ranging between INR 10,000 (~USD134) and INR 150,000 (~USD2,007). Read More: https://bit.ly/3lEyJT1

CERC Approves Introduction of Green Term-Ahead Market Contracts

Renewable power procured through GTAM will be eligible for the fulfilment of RPO

The Central Electricity Regulatory Commission (CERC) has approved the introduction of the Green Term-Ahead Market (GTAM) contracts on the Indian Energy Exchange (IEX), adding that it would provide an avenue for short-term trading of renewable energy. CERC, in its order, stated that revisions in scheduling, as well as an intimation of schedule, have to be as per the CERC (Open Access in Interstate Transmission) Regulations, 2008 as is being followed in case of Term-Ahead Market. Any seller transacting through a portfolio needs to ensure that the source of generation (solar or non-solar) is indicated in the no-objection certificate clearly to participate in the solar or non-Solar segment of GTAM. Read More: https://bit.ly/3lweUNk

India Allows Sale of Electric Vehicles Without Batteries

The Ministry of Road Transport and Highway (MORTH) announced that all the states and union territories (UTs) have now been allowed the registration and sale of electric vehicles (EVs) without pre-fitted batteries. This would make the upfront cost of electric two and three-wheelers cheaper compared to internal combustion engine vehicles. Original equipment manufacturers or energy service providers can provide the battery separately to consumers. The move is likely to provide the necessary boost for the wider adoption of EVs across the country. Read More: https://bit.ly/3gIYopC

Guidelines for Round-The-Clock Procurement of Renewables with Thermal Power

The generator can combine storage for maintaining the minimum annual availability of 85%

The Ministry of Power (MoP) has issued guidelines for the procurement of round-the-clock (RTC) power from grid-connected renewable projects complemented with power from thermal power projects. According to the notification, the generator should supply renewable energy power complemented with thermal power in a round-the-clock manner, maintaining 85% availability during the peak hours. At least 51% of the annual energy offered should correspond to renewable power, and the balance should be offered from thermal sources. The minimum amount of power that can be offered is 250 MW. Since a bidder can tie-up with more than one thermal project for his renewable energy project, thermal capacities even much smaller than 250 MW can be utilized. Read More: https://bit.ly/31DUtpZ

Gujarat's New Industrial Policy Incentivizes MSMEs Going Solar

Surplus solar power from MSMEs to be purchased at INR 2.25 (~USD 0.03)/ kWh

The state government of Gujarat has come up with a new industrial policy for which the average annual outlay would be INR 80 billion (~USD 1.07 billion). The new policy focuses on promoting micro, small, and medium enterprises (MSMEs) and would provide capital subsidy of up to 25% of the eligible loan amount of up to INR 3.5 million (~USD 46,755). The new policy will also offer incentives to MSMEs at 35% of the cost of solar plant and machinery and to large units at 10% for the implementation of cleaner production technology in place of the existing process. Read More: https://bit.ly/3gHtDBB

Guidelines Issued for MNRE's Program for Off-Grid Solar Projects Under RESCO Model

The program is applicable only for north-eastern states for the installation of off-grid solar projects through the RESCO model with central financial assistance (CFA) of 90% of the benchmark cost

The Ministry of New and Renewable Energy (MNRE) has issued guidelines for off-grid solar power projects under the renewable energy service company (RESCO) model. Under the RESCO model, the MNRE has proposed that the vendor would install and operate the solar power projects of capacity up to 10 kW for at least ten years and of capacity above 10 kW for at least 15 years. These projects would be installed on a build-own-operate-transfer (BOOT) basis. The CFA of 90% of the benchmark cost will be paid upfront on the successful commissioning of the project. Read More: https://bit.ly/32ysmaY

Smart Grid Updates (Contd...)

MNRE Lists Lithium Battery Specifications for Off-Grid Solar Applications

The Ministry of New and Renewable Energy (MNRE) has issued a draft notification detailing the specifications of lithium batteries that can be used for off-grid solar applications like solar street lightings and solar study lamps. Considering the batteries appropriate for solar off-grid applications, technology-neutral specifications have been drafted out for Lithium ion batteries e.g. temperature of operation to be between -5 to 60 degree celsius, minimum C/4 charge rate and up to 1C discharge rate etc. Read More: https://bit.ly/2ENREK5

INTERNATIONAL

DRC Launches 600 MW Kinshasa Solar City

The project is expected to be extended to a capacity of 1,000 MWp in the near future

The government of the Democratic Republic of Congo has launched the construction of a 600 MW solar photovoltaic (PV) plant in Menkao, a district located in Kinshasa. The construction of the Kinshasa Solar City project is being carried out by Sun Plus, a subsidiary of The Sandi Group, under a build–own–operate–transfer (BOOT) basis. The electricity generated by the future Kinshasa Solar City power plant will be fed into the grid of the state-owned utility, National Electricity Company (SNEL). According to the authorities of the DRC, SNEL will purchase 100% of the electricity produced by the solar power plant at a set rate of USD 0.095 per kWh as per a 25-year power purchase agreement (PPA) signed by the two entities. Read More: https://bit.ly/3jqLwWW

Australia Adopts Policy for Development Of 1.2GW Wind Project

The wind project was approved in February 2020 by the government of Queensland

Queensland, Australia has adopted the Forest Wind Farm Development Bill 2020, which aims at facilitating the development of the 1.2 GW Forest Wind project. The project, which would require USD 1.45 billion (AUD 2 billion) in investments, is developed by a joint venture between CleanSight and Siemens Financial Services. Construction is expected to begin in late 2021 or 2022. Depending on financial close and discussions on off-take contracts the project could generate its first electricity in 2023. Read More: https://bit.ly/3b9KRWW

Puerto Rico Regulators Set Island on a 5-Year Course to Procure Renewables

The Integrated Resource Plan includes USD 2 billion for improvements to transmission and distribution assets

The Puerto Rico Energy Bureau (PREB) has ruled on the Integrated Resource Plan (IRP) proposed by the Puerto Rico Electric Power Authority (PREPA), directing the procurement of at least 3.5 GW of solar and 1.36 GW of battery storage by 2025. PREPA's plan for eight mini-grids to maintain island resilience was slated for further study, with the utility authorized to begin developing just one of the grids around the San Juan and Bayamón region. Regulators also directed PREPA to explicitly include analysis of virtual power plants (VPP) and distributed resources in its next IRP. Read More: https://bit.ly/2EErMjZ

Portugal's 670 MW Solar Auction Sets a New Record with Lowest Bid of INR 1.14 Euro Cents Per kWh

The awarded capacity of 670 MW was distributed between six entities with Hanwha Q CELLS, South Korea being the biggest winner with the allocated capacity of 315 MW

The government of Portugal has concluded the solar auction held for 670 MW capacity. The second solar auction by the country set a new record with the lowest bid of Euro 11.14 (~USD 13.16)/MWh or 1.14 Euro Cents (1.31 USD Cents) per kWh. This was the largest solar auction in Portugal, and the capacity was equivalent to more than twice the installed solar capacity in the country. In the auction, 75% of the 670 MW, which is 483 MW was for solar with storage capacity, and the remaining capacity of 177 MW was under "system compensation" and 10 MW under "contract for differences. Read More: https://bit.ly/3beh7Iz

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Smart Grid Updates: Technology & Projects

GRID MODERNIZATION

Egypt to Transform Its National Electricity Grid into a Smart Grid

The national government of the Arab Republic of Egypt through the state-owned Egyptian Electricity Holding Company (EEHC), is set to transform its electricity grid into a smart grid with the help of the French industrial group Schneider Electric. The two entities have already signed a US$ 287.5M contract for the implementation of the project. The scope of the work includes the construction of four control centers that will use Schneider Electric's Advanced Distribution Management System (ADMS) to monitor, control, and reconfigure the grid, using "big data" and artificial intelligence. These devices will help improve the availability of electricity by detecting network faults as soon as they occur and then reconfiguring the network to ensure stability. This project is the first of its kind in the region and it is expected to increase the efficiency and sustainability of the national electricity grid owing to the deployed smart technologies. Read More: https://bit.ly/34h5sHr

SMART METERING

Britain Installs First-Ever Polyphase SMETS2 Smart Meter

Britain's first-ever polyphase SMETS2 smart meter was installed on 4 August 2020 at a property in Gloucestershire, marking a significant milestone for the country's transition to a smarter, greener energy system. The device, installed by meter asset provider SMS plc for a customer of Good Energy, will provide homes and businesses connected to a three-phase electricity supply with the option of a smart meter. Three-phase power provides heavy loads of electricity and is predominantly used by industrial and commercial (I&C) or high-usage residential sites. Designed by US-based smart infrastructure solutions provider, Aclara, the SGM1433-B (part of the SGM1430 polyphase family) is the first fully compliant and certified SMETS2 polyphase electricity meter for the UK market, and will deliver a solution for UK utilities to further automate the management of their meter assets at a total lower cost of ownership. SMS has worked closely with Aclara and Smart DCC over the past 12 months in order to bring the meter to the UK market, performing a rigorous testing and verification process at SMS's dedicated test lab in Bolton, Lancashire. SMS has so far installed 1.27 million domestic smart meters on behalf of energy suppliers as part of the smart meter rollout and has a total of 3.74 million metering and data assets under its management. Read more: https://bit.ly/3iI56gY

SMUD and Landis+Gyr Sign Exclusive Five-Year Smart Metering Contract

Sacramento Municipal Utility District (SMUD), California, has agreed to an exclusive five-year smart metering contract with Landis+Gyr as the utility's exclusive smart meter provider. The agreement, which includes both residential and commercial electric advanced meters, supports SMUD's focus on customer engagement and distributed energy resource integration by measuring and monitoring necessary data for resource integration and efficiency programs. SMUD is the sixth-largest community-owned electric utility in the US, providing service to more than 635,000 residential and commercial customers and about 1.5 million people in the Sacramento, California region. This is a great opportunity for Landis+Gyr to continue the relationship with a leader in clean energy adoption and promotion of grid modernisation. Read more: https://bit.ly/3axPhGN

Adani Electricity Invites Bids to Implement Smart Group Metering for Its Power Consumers in Mumbai

Adani Electric Mumbai Limited (AEML) has issued a tender to implement a smart metering solution in its power distribution area of 700,000 consumers in the east division in Mumbai. Interested bidders are expected to make an earnest money deposit (EMD) of ₹25 million (~$0.33 million). The last date for bid submission is September 14, 2020. The tender stated that bids would only be accepted in electronic format. Adani is planning to implement an automatic metering infrastructure (AMI) solution for 700,000 meters to smart group metering by setting up RF (radio frequency) communication canopy network across its distribution area spanning over 99 square kilometres. The scope of work includes the implementation of smart group metering. The bidders need to supply, install, test, commission and provide training of RF communication canopy network elements, RF nodes, group, and standalone smart meters, group smart meter cabin and field maintenance services, head-end system, meter data management system, customer portal and its integrations with the existing AEML systems along with IT infrastructure on the cloud. Bidders have to maintain the entire solution for ten years, and it must be scalable up to 3 million. Read more: https://bit.ly/2Y5TTPw

ELECTRIC VEHICLES

West Bengal's Power Distribution Company to Set Up e-Vehicle Charging Stations

West Bengal's power distribution company, India is planning to set up e-vehicle charging points at strategic location's in the state and introduce a large number of e-vehicles in its fleet to reduce dependency on fossil fuel. In keeping with a Green City Mission launched by the state government and to promote eco-friend initiatives, West Bengal State Electricity Distribution Company Ltd (WBSEDCL) has procured three Tata Tigor e-vehicles on lease basis from Energy Efficiency Services Ltd (EESL). One of the e-vehicles has been placed as a staff car of the Chief Secretary Government of West Bengal and the other two vehicles have been made available to the department of power in line with WBSEDCL's commitment to e-mobility, public awareness and a greener world. Read More: https://bit.ly/3j1thr7

Centre Gives NOD for 178 EV Charging Stations in Telangana, India

Bringing in the much-needed Electric Vehicle (EV) charging infrastructure to the State, the Union Ministry of Heavy Industries and Public Enterprises has finally approved 178 EV charging stations for Telangana. The Telangana State Renewable Energy Development Corporation Limited (TSREDCO) will be the nodal agency for the establishment of these stations, mostly with multiple plug points that can charge at least three cars at one go. While the ministry has approved 118 stations for Urban Local Bodies under the Hyderabad capital region, 10 charging stations will be established in Warangal and another 10 in Karimnagar under FAME II. All the 138 stations will be established and managed by three public sector units, National Thermal Power Corporation (NTPC), Rajasthan Electronics & Instruments Limited (REIL) and Energy Efficiency Services Ltd (EESL). The Centre also approved another 40 EV stations under FAME I which will come up in Hyderabad taking the total number of EV charging stations in the State capital to 158. Read More: https://bit.ly/327fAQC

The ministry has approved 118 stations for Urban Local Bodies under the Hyderabad capital region, 10 charging stations will be established in Warangal and another 10 in Karimnagar under FAME II and also approved another 40 EV stations under FAME I.

ABB to Deliver 250 Rapid Charging Stations to Japan

The Japanese company e-Mobility Power (eMP) has ordered 250 units of the recently introduced Terra 184 rapid-charging stations. eMP is a joint venture between the Tokyo Electric Power Company (Tepco) and Chubu Electric Power, two of Japan's largest utilities. ABB states that the Terra 184 will be used to modernize the charging infrastructure and the new charging stations are to be installed at roadside shops, on motorways and in public places. The Terra 184 is basically compatible with CCS, CHAdeMO and type 2 for AC charging. The maximum charging capacity of the Terra 184 is 180 kW. Read More: https://bit.ly/3iVvJPO

The Terra 184 is basically compatible with CCS, CHAdeMO and type 2 for AC charging. The maximum charging capacity of the Terra 184 is 180 kW.

Lucid Air Claims World's Longest Electric Vehicle Range

Lucid Motors has revealed that its forthcoming luxury EV, the Lucid Air, will be able to travel 517 miles on a single charge. This Environmental Protection Agency (EPA) estimated range makes it the longest range pure electric vehicle ever built. This new benchmark range was secured with FEV North America, applying the EPA's Multicycle Test Procedure (SAE J1634 Oct 2012 Standard) with the standard adjustment factor. Lucid Air has been independently verified by FEV to achieve an estimated EPA range of 517 miles, and that this landmark in the history of EV development has been achieved entirely through Lucid's in-house technology. The production version of the Lucid Air will debut in an online reveal on September 9, 2020. Read More: https://bit.ly/3aEzZQG

ENERGY STORAGE

Tesla Begins Construction of World's Largest Battery Storage Facility

Tesla and PG&E recently broke ground on a record-setting energy storage system in Moss Landing (Monterey) California that, once complete, will be the largest such installation in the world. The battery park will be able to dispatch up to 730 megawatt hours (MWh) of energy to the electrical grid at a maximum rate of 182.5 MW for up to four hours using 256 of Tesla's lithium-ion (Li-ion) Megapacks. Tesla and PG&E will have the option to upgrade Moss Landing's capacity to bring the system up to 1.2-gigawatt-hours which could, according to Tesla, power every home in San Francisco for six hours. The facility is expected to come online in 2021 and will be designed, constructed, and maintained by both companies, with PG&E retaining ownership. The construction of the Moss Landing site and other such mega-storage projects around the world portends a massive shift away from hydrocarbon-based power systems towards renewable generation backed up by utility-scale storage. Read more: https://bit.ly/3awr3Ne

First Grid-Scale Battery Storage Project in Alberta, Canada, Comes Online this Month

The first grid-scale battery energy storage project in the Canadian province of Alberta is on-track to go into operation this month, while TransAlta, the company behind the project, has expedited plans to retire a coal plant citing future market conditions. TransAlta Corporation, which generates and is engaged in wholesale marketing of electricity, is building the WindCharger 10MW / 20MWh lithium-ion battery storage project in the municipal district of Pincher Creek, through its subsidiary Western Sustainable Power Corporation. As the name implies, the project is being built at the site of a wind farm, also operated by TransAlta. The company said it had been investigating the viability of battery storage at its various wind farm locations before selecting the Summerview Wind Farm in Alberta. Approval was granted for WindCharger to be built at the wind farm's substation in November 2019 by the Alberta Utilities Commission and construction began at the end of March this year. While it had originally been expected to be completed in June or July, TransAlta announced in its second quarter 2020 results reporting on 31 July that the project is to be completed during August. Read more: https://bit.ly/2FnVE42

RENEWABLE ENERGY AND MICROGRIDS

World's First Carbon-Negative Hydrogen Project Gets Green Light

Australian technology company Hazer will convert biogas derived from sewage at a wastewater treatment plant in Western Australia into hydrogen and graphite using its proprietary Hazer process. By splitting the biogas (mainly CH_4) into hydrogen (h2) and graphite (C) using an iron-ore catalyst, carbon that would otherwise be emitted as co2 as the sewage decomposed is stored in the

form of solid graphite, making it a carbon-negative process.The graphite can be sold to industry for a profit, effectively offsetting the cost of the hydrogen to the point where it becomes cheaper than other forms of clean h2. The Hazer process is also far more energy efficient than water electrolysis, requiring only 15-30kWh per kilogram of hydrogen, compared to the latter's 65kWh — producing 2-4 times as much h2 for the same energy, further reducing the relative cost of the Hazer hydrogen compared to traditional green h2. The $17m pilot at the Woodman Point Wastewater Treatment Plant, known as Commercial Demonstration Project (CDP), will produce 100 tonnes of hydrogen and 380 tonnes of graphite per year. Some of the hydrogen produced will be converted to electricity via a fuel cell, allowing the project to produce its own renewable power. Woodman Point already produces biogas at its facility inside large tanks known as anaerobic digesters. Read more: https://bit.ly/311A65A

Hazer's commercial pilot in Western Australia will convert biogas into hydrogen and graphite, a solid form of carbon.

Ireland on Track to Reach 2020 Renewable Energy Target

A strong second quarter performance by Ireland's wind energy industry means Ireland is now on track to reach the 2020 renewable energy target to source 40 per cent of electricity from renewables. Figures released by the Irish Wind Energy Association show that wind provided 28.5 per cent of Ireland's electricity across April, May and June and is at 36.8 per cent overall for the first half of the year. The second quarter of 2020 included the best month of June on record for electricity generation. Two new wind farms were connected and planning permission was obtained for another 136 MW of wind energy. Read more: https://bit.ly/2CyZkiz

Solar Energy to Power Siachen Base Camp, Ladakh, India

SECI has awarded contracts for setting up two solar-storage power plants of 1 megawatt each at Siachen (Base Camp) and Partapur. Both will have 2 megawatt of battery storage for round-the-clock supply. The Siachen project will meet the lighting and heating needs at Base Camp I, II and III. The Partapur project will meet similar needs of the Army's 102 Brigade tasked with defending the strategically vital glacier. The projects will reduce the Army's dependence on diesel for running generators and more than halve the cost of power. Siachen base camp will get power at Rs 9.89 per unit and Partapur at Rs 10.34 against Rs 24-25 per unit for supply from generators. The tariffs are for 25 years. Read more: https://bit.ly/3hfnPA8

Microgrid Installed at DataBank's ATL1 to Enable Smart Power Use

DataBank, a leading provider of enterprise-class data centre, connectivity and managed services, is announcing a unique addition to its ATL1 data centre in midtown Atlanta's Tech Square CODA collaborative. A newly installed microgrid employs three power resources: a natural gas and diesel generator, energy cells, and a battery bank. The microgrid serves as a collaborative effort in a research and development capacity for Georgia Power, Southern Company R&D, The Georgia Institute of Technology (Georgia Tech), and DataBank. In addition, the microgrid enables several measures, automatically. First, it acts as an emergency generator source in case of power failure. Second, it acts as a standalone power source delivering a maximum of 1.5 megawatts to the Georgia Institute of Technology's High-Performance Computer Center (HPCC), which is housed in ATL1. The microgrid can run parallel to Georgia Power's grid as an additional power source. The cost of powering the HPCC during peak hours increases significantly. The benefit of the microgrid is that during peak hours, it can adjust energy draws and peak load to save costs. The microgrid is also capable of sensing the HPCC total kilowatt load and then delivering power based on the capacity needed. Read more: https://prn.to/2FmzHSX

California Offers New Proposal to Break Down Barriers to Microgrids

Staff at the California Public Utilities Commission released a proposal in July 2020 that calls for a new microgrid pilot program, a special tariff for microgrids, and other measures to overcome barriers to microgrid development. The proposal comes in the second phase of a commission proceeding to help commercialize microgrids. The first phase culminated in June when the commission ordered a number of short-term modifications required of utilities, including steps to expedite applications and approvals. For the second phase, staff took on more complex issues affecting microgrids, and proposed five changes for the commission to consider: Direct utilities to allow construction of microgrids at special facilities, allow microgrids to serve critical customers at adjacent parcels, require utilities to create a microgrid tariff, direct utilities to develop a community microgrid pilot program; and direct utilities to study low cost reliable electrical isolation technologies. The pilot program would focus on 15 community microgrids built within the service territories of Pacific Gas & Electric, San Diego Gas & Electric and Southern California Edison. Ratepayers from the three utilities would fund the microgrids, which would be designed to serve vulnerable populations, particularly low-income areas likely to face power outages. The proposal caps funding for each community microgrid at $15 million. Read more: https://bit.ly/2Y9C9CT

SMART CITIES

Pilot-Project for Peer-To-Peer Energy Trading Launches in Singapore

Electrify, a Singaporean energy innovation company, has launched a pilot-project for peer-to-peer (P2P) energy trading in the city-state. The project will allow consumers to purchase renewable electricity produced by private solar panel owners via an online marketplace from across the city. The pilot project is built upon Electrify's proprietary P2P energy trading platform, Synergy, and builds upon a successful technical trial conducted in Singapore in February 2019. The pilot is conducted in collaboration with energy company Senoko Energy and is sponsored by Engie Factory, the venture arm of French multinational electric utility company. Electrify has forecasted US$60m worth of solar energy to be transacted across major Southeast Asian markets by 2023, a significant increase from US$2.6m next year. Read More: https://bit.ly/2FQ0Ga1

Smart Dubai Evolves Its Plans for Human-Centred, Ethical AI

The future roll-out of tools for better artificial intelligence (AI) and the potential of AI audit practices and cybersecurity were the core themes addressed by the Smart Dubai's second meeting of its Artificial Intelligence Ethics Advisory Board. The board was formed to steer the development and deployment of human-centred ethical AI, and to encourage fairness, transparency, and accountability in AI systems in Dubai. Smart Dubai is continuously looking to develop and evolve its Ethical AI Guidelines and Self-Assessment Tool, originally launched in January 2019, to enhance government AI services and promote the adoption of artificial intelligence-based solutions in the wider market. Read More: https://bit.ly/2EuHGwl

Planet Smart City Provides Digital Tools for UN Habitat's Slum Upgrade Programme in Kenya

Smart affordable housing specialist Planet Smart City is joining forces with the United Nations Human Settlements Programme, UN-Habitat, to help upgrade two of the oldest and biggest slums in Nairobi, Kenya. The company will use its expertise in technology, data analytics and community engagement to help improve lives in informal settlements in Kibera and Mathare as part of UN Habitat's participatory slum upgrading programme (PSUP). PSUP is a partnership initiative of the African Caribbean and Pacific group of States Secretariat, the European Commission, and UN-Habitat. Since 2008, the PSUP has been working to achieve the Sustainable Development Agenda, in particular Sustainable Development Goal 11.1, which aims to ensure access for all to adequate, safe and affordable housing and basic services, and upgrade slums by 2030. Read More: https://bit.ly/3l9MxEL

Agartala Ranks as the Top Smart City in Northeast India

Agartala, Tripura's capital city, has ranked top among the 10 smart cities of the Northeast. Apart from this, its national ranking has jumped to 56 from the previous 74. The Tripura government stated that the success of Agartala Smart City in speeding up the project tendering, sanctioning, and implementation has been appreciated by the Ministry of Housing and Urban Affairs, Secretary, and Government of India during the review of the North Eastern States recently. The national ranking of Agartala has also improved, and that the Agartala Smart City has taken up around 80 projects so far for the overall growth of the city. Read More: https://bit.ly/3hjOo7n

STANDARDS AND CYBER SECURITY

US-Israel Energy Center Announces a New Funding Opportunity for Infrastructure Cybersecurity Cooperation

The Israel Ministry of Energy, The Israel Innovation Authority (IIA), and U.S. Department of Energy (DoE) have announced a new Call for Proposals from the U.S.-Israel Center of Excellence in Energy, Engineering and Water Technology (also known as the U.S.-Israel Energy Center) for cooperation in cybersecurity. The hope is to develop tools and technology relating to energy cyber and cyber-physical security for essential infrastructure. This is one of four main areas the Energy Center focuses on, with others relating to fossil fuels, energy storage, and energy-water nexus. Read More: https://bit.ly/3heUypi

CISA, USA Seeks to Stay Ahead of Emerging Cyber Threats with New Framework

The Cybersecurity and Infrastructure Security Agency (CISA) is collaborating with a national laboratory with the Department of Energy (DoE) to come up with a cyber-risk framework to help identify the latest cyber threats facing the country's critical infrastructure. Daniel Kroese, acting deputy assistant director of CISA's National Risk Management Center, said the National Critical Functions Risk Architecture is a big data platform that will help determine some of the "common pathways" of cyber-attacks on telecommunications, finance, energy and other sectors. Read More: https://bit.ly/34qZG6v

FERC, NERC Release Vendor Cybersecurity Guide to Help Identify Huawei, ZTE Chips

The Federal Energy Regulatory Commission (FERC) and North American Electric Reliability Corporation (NERC) July 31 published a cybersecurity guide for the power sector, which covers four noninvasive techniques that security professionals can use to identify chips produced by Huawei and ZTE. The white paper guides the industry to think beyond their equipment vendor relationships to examine the component suppliers, Josh Sandler, EY Energy cybersecurity senior manager, said in an email. The white paper also complements the new NERC critical infrastructure protection (CIP) standard for Cybersecurity Supply Chain Risk Management (CIP-013) that becomes effective Oct. 1, according to Sandler. Read More: https://bit.ly/3hadJkk

DISRUPTIVE TECHNOLOGIES

Department of Energy Announced $37 Million for Artificial Intelligence and Machine Learning at DOE Scientific User Facilities

The U.S. Department of Energy (DOE) on 17th August announced $37 million in funding for research and development in artificial intelligence and machine learning methods to handle data and operations at DOE scientific user facilities. Seven DOE national laboratories will lead a total of 14 projects aimed at both automating facility operations and managing data modeling, acquisition, mining, and analysis for the interpretation of experimental results. The projects involve large X-ray light sources, neutron scattering sources, particle accelerators, and nanoscale science research centers. The projects are supported by three program offices within DOE's Office of Science: Basic Energy Sciences, High Energy Physics, and Nuclear Physics.

Awards were selected by competitive peer review under a DOE National Laboratory Announcement. Planned funding totals $37 million over three years, with $11 million in Fiscal Year 2020 dollars and outyear funding contingent on congressional appropriations. Read more: https://bit.ly/2FzIBww

Energy Department, JAIC, Microsoft Launch AI for First Responders Consortium

The Department of Energy, USA and Microsoft are leading a new consortium using AI to improve the first responder experience based on a prototype from the Department of Defense's Joint Artificial Intelligence Center (JAIC). According to a recent announcement from the Department of Energy AI and Technology Office (AITO), the First Five Consortium is an industry, government, non-profit, and academia collective formed to support and develop solutions that will improve natural disaster mitigation. The JAIC prototype uses deep learning algorithms to provide near real-term data to first responders and improve decision-making.

The First Five Consortium will apply AI and deep learning to areas such as wildfire containment, damage assessments, and search and rescue initiatives. First responders can also submit problems or use cases to the consortium to inspire new AI projects for the group to tackle. The consortium will also explore other tech such as confidential computing, modernized communications, distributed systems, and cybersecurity to improve disaster resilience. Read more: https://bit.ly/2EgZqfh

SunSpec Alliance, Energy Web Target Renewable Energy Standards to Harness Blockchain Benefits

The Energy Web Foundation (EWF) on 18th August announced joining of the trade alliance SunSpec as its latest member. Together, they aim to develop standards and solutions so that different brands of solar panels and battery storage equipment are interoperable.

EWF is a global non-profit consortium that leverages blockchain technology for renewable energy applications. It boasts more than a hundred members, including numerous electricity utilities around the world as well as Shell and Total.The SunSpec Alliance primarily aims to create information standards to facilitate "plug and play" system interoperability. It represents around 100 firms spanning three continents, including major players such as Tesla and LG Electronics. Most manufacturers use custom components and proprietary software and data formats. Often additional software is required to access the data in all these different formats. Read more: https://bit.ly/31fA22y

Blockchain Demonstrator Helps Energy Companies Explore the Potential of Distributed Ledger Technologies

Systems, engineering and technology consultancy, Frazer-Nash, has been working with the Energy Innovation Centre and three of the distribution network operators (DNOs): SP Energy Networks, Scottish and Southern Electricity Networks, and UK Power Networks, as well as Cardiff University, to imagine the future of the distribution network.

A tool developed by Frazer-Nash Consultancy demonstrates the way distributed ledger technology could be used to help shape the UK energy distribution network

The company has developed a demonstrator tool that is helping the DNOs to explore Blockchain and Distributed Ledger Technologies (DLTs) more broadly, as a potential solution for solving new challenges posed by their transition to being Distribution System Operators (DSOs), such as contracting with distributed energy resources (DERs). Read more: https://bit.ly/3hhLCzu

AWS and New Zealand electricity and Gas Distribution Company Vector Launched IoT-Connected Energy Platform

The New Energy Platform aims to change how energy is managed, delivered, and consumed across Australia and New Zealand

Amazon Web Services (AWS) has partnered with New Zealand electricity and gas distribution company Vector to develop an Internet of Things (IoT) and analytics solution, targeted at the energy sector. Under the multi-year "strategic alliance", the companies will jointly develop the New Energy Platform (NEP) in hopes of delivering consumers more affordable, reliable, and cleaner energy options across Australia and New Zealand. The NEP is powered by AWS and its initial focus would be to "rapidly" collect and analyse data from more than 1.6 million IoT-connected Vector advanced meters that gather information on energy consumption and network performance across the two countries.

The NEP will leverage AWS IoT Analytics, which is a fully-managed service helping to run and operationalise sophisticated analytics on massive volumes of data. It is expected the service would provide Vector and other energy and utilities companies with insights on network performance to help plan energy networks, drive smarter investment decisions, and increase reliability for consumers. Read more: https://zd.net/34gsOwR

SMART WATER AND SMART GAS

Two Outlets Start Sale of CNG In Nashik, Maharashtra, India

The Maharashtra Natural Gas Ltd (MNGL) has started commercial sale of Green fuel for vehicles in Nashik. The two fuel stations that are providing CNG are at Igatpuri a town and Sinnar a city in Maharasthra. The sale of CNG from these two locations has started a few days ago. The two outlets are selling about 1,500kg of CNG on an average. Unlike conventional fuel, CNG is non-polluting and used by scores of four wheelers and autorickshaws. The use of CNG will help in tackling the problem of air pollution in Nashik.

Apart from CNG, MNGL is also working to create infrastructure for supply of piped natural gas (PNG) to households. PNG will be a replacement for LPG that is used for cooking. Nashik Municipal Corporation was helping the company to create the necessary infrastructure for the supply of green fuel in the city. Read More: https://bit.ly/2PZe9hl

Technology & Projects (Contd...)

Virginia Utility Announces US' Largest Deployment of Remote Disconnect Water Meters

Newport News Waterworks, the second-largest water utility in the US state of Virginia, has announced an advanced metering infrastructure (AMI) project with Mueller Systems and Ferguson Waterworks. The project will include smart water technology and is claimed to be the largest deployment of remote disconnect meters in the US. The smart water meter project will be deployed over the next four years. The AMI system will leverage a water intelligence platform that provides data insights into a water utilities' distribution system. Remote disconnect meters will provide enhanced customer service and operational efficiencies in metering with the capability to generate insights across the water distribution system in the future for leak detection, pressure monitoring and water quality. Read More: https://bit.ly/31bpUYq

Dallas Saves 12 Million Gallons of Water Thanks to Smart Meters

The US city of Dallas in Georgia has managed to eliminate 12 million gallons of lost water within one year by deploying a smart meters programme. Following a successful pilot deployed in partnership with Sensus, the city of Dallas embarked on a five-year AMI meter deployment project.

The pilot included the deployment of IPERL smart water meters, which helped the city to reduce non-revenue water, an undertaking that netted a $12,000 return in just four months. The five-year full-scale rollout includes IPERL smart water meters, OMNI smart meters for commercial customers and a two-way IoT communications network. Read more: https://bit.ly/3g8O7TC

Smart Grid Projects in India - Ongoing Tenders

Sl. No.	Utility	Tender Details	Submission Date	Source
1	Assam Power Distribution Company Limited (APDCL)	Supply , installation , testing and commissioning of smart metering with AMI at Silchar town , Jorhat town and selected areas of Guwahati town	23rd September, 2020	https://bit.ly/32FozZm
2	Assam Power Distribution Company Limited (APDCL)	Supply , installation , testing and commissioning of smart metering with AMI in Goalpara town , Nalbari town , Kokrajhar town and selected areas of Guwahati town	22nd September, 2020	https://bit.ly/2Qwo66i
3	Punjab State Power Corporation Limited (PSPCL)	AMI/smart metering solution for Agar Nagar division Ludhiana	22nd September, 2020	https://bit.ly/32DYbPt
4	Adani Electricity Mumbai Limited (AEML)	Tender for implementation of smart metering solutions in AEML distribution area for 700000 consumers	14th September, 2020	https://bit.ly/32Fejk5
5	Maharashtra State Electricity Distribution Limited (MSEDCL)	Supply of 4,00,000 smart meters for 10 towns under MSEDCL	To be Announced Soon	https://bit.ly/3jyJ2pH

Appointments and Transfers

SPS Parihar has been appointed as Chairman, Madhya Pradesh Electricity Regulatory Commission

Akash Tripathi, IAS has been appointed as Secretary (Energy), Govt of Madhya Pradesh; Managing Director, MP Power Management Company Limited and Chairman of all three Electricity Distribution Companies in MP - Eastern, Central and Western DISCOMs

BB Mehta has been appointed as Director (SLDC), Odisha Power Transmission Corporation Ltd

Gajendra Mohapatra has been appointed as Member, Odisha Electricity Regulatory Commission

Subrat Sahoo has been appointed as Chairman & Additional Chief Secretary, Energy, Govt of Chhattisgarh

Harsh Gautam has been appointed as Managing Director, Chhattisgarh State Power Distribution Co Ltd

M Shenbagam has been appointed as Chief Executive Officer, Central Electricity Supply Company of Orissa Ltd

Anshu Bhardwaj has been appointed as CEO of Shakti Sustainable Energy Foundation

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ANNOUNCING India Smart Utility Week (ISUW 2021)

India SMART UTILITY Week 2021

INTERNATIONAL CONFERENCE AND EXHIBITION ON SMART ENERGY AND SMART MOBILITY FOR SMART CITIES

02 March - 06 March 2021

New Delhi, India

www.isuw.in

ISUW 2021 Conference and Exhibition Program

2nd March 2021 Tuesday	3rd March 2021 Wednesday	4th March 2021 Thursday	5th March 2021 Friday	6th March 2021 Saturday
Master Classes	Conference & Exhibition Welcome Reception	Conference & Exhibition	Conference & Exhibition ISGF Innovation Awards & Gala Dinner	Technical Tours Cultural Tours (Optional)

For Queries Regarding Sponsorship, Exhibition and Participation, Contact India Smart Grid Forum
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Announcing Distribution Utility Meet (DUM) 2020

DISTRIBUTION UTILITY MEET DUM 2020

4th Annual Conference of Power Distribution Utilities for Collaborative Growth

27 – 28 November 2020

The 4th edition of ISGF's Annual Conference of Power Distribution Utilities – **Distribution Utility Meet (DUM 2020) will be held on 27 - 28 November 2020 on Digital Platform**. DUM 2020 will provide a unified voice to influence and enable the Electric Utilities to leverage each other's experiences for successful nation wide Smart Grid rollouts and to bridge the gap between strategy and execution. As India moved forward in its Smart Grid journey, it is imperative that we do not make the same mistakes but learn from each other's experiences and also bring international best practices to India. Experts from leading Utilities from USA, Canada and Europe well be invited to participate in DUM 2020 and share their experiences.

Themes of DUM 2020

- Digitalization in Discoms
- Policies and Regulations for the Digital Discom
- Discoms After Covid-19
- 250 Million Smart Meters

For Queries Regarding Participation, Contact India Smart Grid Forum
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