Pilot Project on Time of Use Tariff for Electricity Launched in Uttar Pradesh by India Smart Grid Forum

The problem of climate change is affecting everyone including the most powerful and influential economies as well as the developing ones in a way never before. Rapid growth and urbanization have brought new challenges for the humanity. Electricity sector is one among the biggest emitters of the greenhouse gases. Countries across the globe are promoting renewable energy (RE) to decarbonize the power sector. Though demand side management (DSM) is an effective tool to reduce and manage the energy consumption at the consumer end, Time of Use (ToU) or real-time tariffs can catalyse the DSM efforts. Traditionally popular methods for managing peak loads in India are the use of peaking power plants and/or load shedding at prescheduled hours at select locations/regions. Usually, the goal of DSM is to encourage the consumer to use less energy during peak hours, or to move the time of usage of certain appliances/equipment to off-peak times such as late night and holidays. Typically, in any city or utility, the last 100 MW of the peak load in a year is experienced for less than 100 hours. In order to service that load capacity enhancement in generation, transmission and distribution is not commercially viable. One of the most innovative and economical DSM tools to reduce peak load as well as increase consumption during off-peak hours is the implementation of ToU or real-time tariff for electricity.
ToU tariff is a scheme in which higher, normal or lower tariff are applied based on the real time load on the network instead of fixed daily hours as in the case of Time of Day (ToD) Tariff. India Smart Grid Forum (ISGF) had undertaken a detailed feasibility study for implementation of Time of Use (ToU) Tariff in Gujarat in 2019 to create a practical implementation framework for the utilities to implement ToU in their territories. In order to implement ToU tariff successfully, smart meters with two-way communication facilities between the utility and the customers and related IT systems are required. Uttar Pradesh Power Corporation (UPPCL) has installed 11,44,932 smart meters across Uttar Pradesh. Out of which 3,75,100 smart meters have been installed in Madhyanchal Vidyut Vitran Nigam Ltd (MVVNL) area in UP. Thus, MVVNL emerged as the best suited partner for the implementation of the proposed ToU pilot project.

This pilot will be implemented under the regulatory sand-box approach in which regulator has accorded permission to apply ToU tariff scheme for the customers voluntarily participating in the project for a specified period. The proposed pilot project will test the effectiveness of ToU tariff by producing shadow bills under the ToU scheme (where as these customers will be billed under the existing tariff of the utility). The shadow bills will show the customers their savings had the ToU been applied for actual billing. The pilot would also help the utility to determine how much load shifting can be achieved through ToU, reduction in power purchase cost and the difference in utility’s revenue. The pilot will also test customers willingness to participate in ToU and test “ideal range” of incentives and penalties for motivating customers to participate in ToU scheme.

With the help of primary data source from 50-100 consumers (having cumulative load of 50 MW), the peak load for a set of congested feeders will be analysed and will be shifted with the help of enrolled consumers. The peak load reduction achieved (expected to be in the range of 5 MW), the same will be extrapolated for the entire utility with the help of an open-source algorithm. The pilot project will also calculate the carbon footprint reduction potential from the estimated peak demand shifting and reduction in number of hours of load shedding. The demand reduced/shifted during peak hour is considered to be from a thermal power plant and the emission reduction will be calculated based on the average emission per kilo-watt hour (kWh) of electricity produced from thermal plants in Northern India. Capacity of DG sets being used by the customers participating in the ToU pilot will be known accurately; but the DG sets capacities of other customers in the project area who have benefitted by reduced load shedding cannot be surveyed under the scope of this pilot project. But certain data available in the public domain and with UPPCL relating to DG set penetration in the project area will be compiled and these data will be used for estimating the carbon footprint reduction from reduced usage of DG sets.

This pilot will help with detailed feasibility analysis, potential impacts and policy recommendations for ToU Tariff in the state of Uttar Pradesh. An implementation framework and effective roadmap will be created for the utilities to understand the procedure and required infrastructure to implement ToU.
Appointments and Transfers

- **Rengthanvela Thanga** has been appointed as Member from Manipur and Chairperson, Joint Electricity Regulatory Commission for Manipur & Mizoram
- **Khose Sale** has been appointed as Chairperson-cum-Member, Nagaland Electricity Regulatory Commission (NERC)
- **Saket Kumar** has been appointed as Managing Director, Uttar Haryana Bijli Vitran Nigam Limited (Panchkula), Haryana
- **D P Wahlang** has been appointed as Managing Director, Meghalaya Power Distribution Corporation Limited
- **H M Manjunatha** has been appointed as Member (Legal)/Acting Chairperson, Karnataka Electricity Regulatory Commission
- **Gajendra Mohapatra** has been appointed as Member/Officiating Chairperson, Odisha Electricity Regulatory Commission
- **Pankaj Dadwal** has been appointed as Managing Director, Himachal Pradesh State Electricity Board Limited
- **Anil Kumar** has been appointed as Managing Director, Uttarakhand Power Corporation Limited

Smart Grid Updates: Policy, Regulations & Standards

**INDIA**

**CERC Orders Power Exchanges to Cap Market Clearing Price**

Central Electricity Regulatory Commission (CERC) directed the power exchanges to redesign their bidding software so that members can submit their buy bids at the maximum price of INR 12 (~USD 0.16)/kWh for Day-Ahead Market and Real-Time Market. Since higher price has not led to a commensurate increase in supply and such a position is likely to remain for some time in the coming days due to supply constraints and 99% of the supply bids have been in the range as mentioned above, the Commission believes that this price moderation will reflect the present market realities and will not significantly impact the volume transacted and safeguard the consumer interests.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5749

**Karnataka Approves Carry Forward of Banked Renewable Energy**

The Karnataka Electricity Regulatory Commission (KERC) recently ruled that the energy banked and unutilized as of March, 2021, including the carried forward banked energy for the financial year 2020 from all renewable sources, both REC (renewable energy certificate) and non-REC route, should be utilized on or before August, 2022, by the companies wheeling energy under the wheeling and banking agreement (WBA). Further, the ESCOMs are not liable to pay any amount for the banked energy for FY 2020 and FY 2021, remaining unutilized energy as of August, 2022, to the companies wheeling the energy.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5750

**Draft Battery Swapping Policy Released**

NITI Aayog has issued the draft battery swapping policy addressing the key technical, regulatory, institutional, and financing challenges to help India develop battery-swapping ecosystems to unlock the large-scale adoption of battery-swapping. The policy aims to promote the adoption of battery swapping technology implemented via Battery as a Service (BaaS) business model, ensuring lower upfront costs, minimal downtime, and lower space requirements and also intends to encourage the formation of ecosystems capable of delivering integrated services to end-users and promoting better lifecycle management of batteries, including maximizing the use of batteries during their usable lifetime and end-of-life battery recycling.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5752

**MNRE Invites Proposals for Pilot Projects of Innovative Solar Applications**

The Ministry of New and Renewable Energy (MNRE) has invited proposals for pilot demonstration of new and innovative...
The winner will be provided with a maximum of 200,000 euros (~USD 217,602) to procure materials for the pilot project

The new solar policy is expected to create 40,000 jobs for sales, construction workers, electricians, technicians, and engineers in the rooftop solar segment

The additional surcharge will not be levied on open access consumers who wheel power from their captive power projects

The strategy covers assisting consumers with their energy bills, increasing energy efficiency, supporting the oil and gas sector, and developing renewables

Britain’s New Energy Security Strategy Aims at 70 GW Of Solar Capacity By 2035

The United Kingdom has set out an Energy Security Strategy to accelerate the deployment of new renewable projects, including wind, nuclear and solar, to contribute more than 95% of the electricity generated. The strategy aims to tackle rising global energy prices, and Britain aims to cut off its reliance on fossil fuel imports subject to volatile gas prices set by international markets. The strategy builds on government’s Ten Point Plan for a Green Industrial Revolution and, together with the Net Zero Strategy, is driving an unprecedented 100 billion pound (~USD 130.23 billion) of private sector investment into new British industries.

Tanzania Vows to Generate 200MW From Geothermal

The Tanzania government has reiterated its commitment to implement plan of generating 200MW from the geothermal by 2025 and identified 52 areas that could produce geothermal power. These sites are spread across the regions of Mbeya, Arusha, Dodoma, Iringa, Coast, Kilimanjaro, Kagera, Katavi, Shinyanga, Morogoro, Mwara, Manyara, Rukwa, Singida, Songwe and Tanga. Tanzania Geothermal Development Company (TGDC), a subsidiary of state-owned Tanzania Electric Supply Company (TANESCO) is covering...
several geothermal sites for potential development including Ngozi in Mbeya and Songwe regions, Kiejo-Mbaka in Mbeya region, Natron in Arusha region and Luhoi in the coastal region.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5759

Philippines’ New Roadmap Targets 40GW Offshore Wind By 2050

The Philippines’ Department of Energy and the World Bank Group (WBG) has launched a new roadmap that seeks to tap into the country’s 40 GW potential in offshore wind. The Philippines Offshore Wind Roadmap outlined the state actions that need to be taken in partnership with stakeholders to achieve the 2050 plan, such as the establishment of offshore wind development zones. The roadmap projected that in a low growth scenario the Philippines could install 6GW of offshore wind by 2050; whilst this could go as high as 40GW over the same period, under the high growth scenario.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5760

Bulgaria To Set Up First Regional Platform as Part of The EU’s Energy Purchase Platform

The European Commission and Bulgaria agreed to set up in Sofia a first regional taskforce, as part of the EU’s Energy Purchase Platform. This pilot will look at gas and electricity needs, prices and flows, as well as infrastructure aspects. The regional taskforce will concentrate on the year ahead and provide specific regional expertise and knowledge to develop and implement the REPowerEU action plan to reduce dependency on Russian fossil fuels, fill storage ahead of next winter and further accelerate the decarbonisation of the energy sector.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5761

World Bank’s high growth projection could provide some USD 30 billion in cumulative net benefit back to consumers by 2050

Maryland Takes the Lead on Near-Term State Carbon Reduction Targets

Maryland is aiming to have a carbon-neutral economy by 2045 under its Climate Solutions Now Act of 2022, enacted in April. The law also requires an unprecedented 60% reduction in economy-wide greenhouse gas emissions by 2031, a significant increase from the state’s earlier 40% reduction target below 2006 levels. The law provides funding and oversight to help reduce pollution in overburdened communities, aligning it with the government’s initiative to provide disadvantaged communities a healthy share of clean energy’s benefits.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5762

Canada Unveils 2030 Emissions Reduction Plan

Canada unveiled the country’s 2030 Emissions Reduction Plan to reduce greenhouse gas. The Plan includes bold new measures to dramatically curb greenhouse gas emissions: the goal is to reduce emissions by 40 to 45 percent below 2005 levels by 2030 and to achieve net-zero emissions by 2050. The Plan includes $9.1 billion in new investments in the initiatives like increased targets for lower emission vehicle sales, extension of the Incentives for Zero-Emission Vehicles Program (“iZEV”), additional charging stations for zero-emissions vehicles, electrifying more activities, reducing energy costs for homes and buildings, reducing carbon pollution from the oil and gas sector.

Read more: https://www.indiasmartgrid.org/viewnews.php?id=5764

The regional taskforce will support and coordinate implementation of the joint preparedness plans in the region, including international purchase, storage and interconnections

The bill establishes the Climate Catalytic Capital Fund to leverage private sector investments in energy efficiency, renewables and environmental equity

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Indian Delegation to CIGRE Session 2022 scheduled from 28 August – 02 September 2022 at Paris, France

International Council on Large Electric Systems (CIGRE) is a world-renowned organization dedicated to constant improvement of power system technologies. CIGRE Session is a unique bi-annual event which gives excellent opportunity to the participants from about 100 countries to interact and exchange technical knowledge with top international experts on various subjects related to Power System Development in the world. About 8,000 participants are expected to participate with 300+ technical papers to be presented. A world class exhibition is also being held at the venue, which provides the opportunity to discover new services, tools, equipment and materials as well as the most advanced technologies in the field of power systems.

We are pleased to inform that ISGF in collaboration with CBIP and CIGRE India will be leading a high-power delegation of Senior Government and Utility Officers, Regulators and Industry Experts from India to CIGRE Session 2022 scheduled from 28 August – 02 September 2022 at Paris, France. To have more ideas about the energy transition and grid modernization efforts taking place around the world and to participate with your senior colleagues in this event kindly send your nominations to ronkini.shome@indiasmartgrid.org. Post receiving the nominations we will be sharing further details with you.

Smart Grid Updates: Projects and Technology

GRID MODERNIZATION

SDG&E Releases Decarbonization Roadmap with First Utility Industry Standard Reliability Analysis

San Diego Gas & Electric Company (SDG&E) released “The Path to Net Zero: A Decarbonization Roadmap for California,” which incorporates for the first time the utility industry standard for reliability using industry-specific planning tools. Conducted with technical support from the Boston Consulting Group, Black & Veatch and UC San Diego, the study concluded that a diversified decarbonization approach is necessary: a combination of clean electricity, clean fuels (such as renewable natural gas and clean hydrogen) and carbon removal. Accelerated electrification of transportation and other sectors is essential to California and region’s sustainability.

Read more: https://www.indiasmartgrid.org/viewnews.php?id=5763

DEWA Implements Updated Smart Grid Strategy 2021-2035 for Dubai

Dubai Electricity and Water Authority (DEWA) is implementing its updated Smart Grid Strategy 2021-2035. This strategy features a high standard of resilience and agility, which keeps pace with development and rapid changes to ensure the continuity of the organisation’s excellence and global leadership. As part of achieving the short-term goals of its Smart Grid Strategy 2014-2035, DEWA replaced electricity and water meters with smart meters between 2015 and 2020. Between 2015 and 2017, DEWA fully automated its transmission network connected to the 400kV and 132 kV substations.

Read more: https://www.indiasmartgrid.org/viewnews.php?id=5766

SMART METERING

Groupe E Selects Sagecom for Its Smart Meter Deployment in Switzerland

Sagemcom announced that it has been selected by Groupe E for the delivery of its SICONIA Software suite. In addition to the meter-to-cash services, Sagemcom’s SICONIA Software Suite (HES, MDMS) will allow Groupe E to take a step forward and enable a large set of smart grid services and use cases such as the management of distributed energy resources (Renewable energy resources, Electric Vehicles charging points, etc.), the improvement of flexibility services, the management of individual and grouped self-consumption, the improvement of the Quality of Supply and other grid oriented services. With the digitization of the low-voltage network, Sagemcom and Groupe E aim to further enhance grid management with analytics capabilities.

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MSEDCL, India to Procure 1.5 million Power Meters

Maharashtra State Electricity Distribution Company Ltd (MSEDCL) has directed suppliers to provide a whopping 1.5 million power meters by September this year. A press release stated that the decision would help the MSEDCL to tide over shortage of electricity meters. One lakh new power meters will be available by April 30, and two lakh in May. Thereafter, 3.27 lakh meters will be available every month from June to September. It may be mentioned that around 9 lakh new connections are commissioned by MSEDCL every year. At the same time, the MSEDCL also needs two lakh meters per month for meter replacement due to faulty meters and other reasons. At present 1.31 lakh meters are available in the field offices of MSEDCL till April 22.

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One Million Smart Meters for Israel

Israel Electric Corporation is reported to be starting a one million smart meter rollout over the next five years. The rollout is reported to see 200,000 new smart meters installed annually. The suppliers are the Israeli technology companies Afinon and Tadal. The rollout is due to start in the cities of Rishon LeZion, Herzliya, Petah Tikva, Hadera and Ashdod in the vicinity of Tel Aviv. The new meters are expected to open the way for a growing number of private suppliers to compete in the sector, with the offer of new services and variable daily and seasonal tariffs.

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Optimising Smart Meter Rollouts with Proactive Customer Communication, Britain

Great Britain’s Office of Gas and Electricity Markets (Ofgem) has given suppliers until the end of 2025 to complete a rollout of smart meters to every home in the UK. Already, the rollout has posed significant operational concerns for energy companies, in large part because customers simply don’t care if they have a meter installed or not. Appointment notice emails and postcards go unnoticed or ignored, and no-access rates are sky-high compared to your average repair call. This will present a significant challenge for utilities in the next three years. However, proactive customer communication can help utilities hit smart meter rollout goals and improve operational efficiency.

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ELECTRIC VEHICLES

Dabur India to Induct 100 EVs for Last-Mile Product Distribution

Dabur India Ltd to induct a fleet of 100 electric vehicles (EVs) in its supply chain for last-mile product distribution in the next 12 months. The first batch of the new EVs has been inducted into its fleet in North India and has commenced deliveries in Haryana’s Sonipat area. The move will help the company move closer to its mission of achieving carbon neutrality in its operations and will result in a sizeable reduction of carbon emissions annually.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5767

Hero Electric and Bolt to Set-up 50,000 EV Charging Stations

Hero Electric has partnered Bolt an EV charging network company to set up 50,000 charging stations in India in the next one year. As part of the collaboration, Bolt chargers will be installed in more than 750 Hero Electric’s touch points across India, will benefit over 450,000 Hero Electric customers. Furthermore, around 2,000 Hero Electric customers will get free of cost Bolt charging units set up at their homes. The Bolt will be integrated within the Hero Electric App and website, offering a one-stop solution for locating a charging station, booking a slot, and payment.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5768

Mira Bhayandar Municipal Corporation (MBMC) Offers Tax Sops to Encourage EV Charging Stations in Housing Societies

Mira Bhayandar Municipal Corporation (MBMC) to encourage the push for green energy, offers tax sops to individuals and housing societies who set-up charging stations for electric vehicles (EV). As per the proposal by the civic administration, the property tax exemptions will range from 2 to 5 per cent which is in accordance with the state urban development department guidelines based on the newly drafted Maharashtra Electric Vehicle Policy.

Read more: https://www.indiasmartgrid.org/viewnews.php?id=5770

MG Motor India, Bharat Petroleum Partner to Strengthen EV Charging Ecosystem

MG Motor India has partnered with Bharat Petroleum Corporation Limited (BPCL) to bolster the EV charging infrastructure across the country. The partnership with BPCL will add momentum to EV adoption by expanding opportunities for intercity travel as the two entities will install EV chargers across highways and within cities. With BPCL’s vast customer reach and operations and MG’s strides in the EV space, the two entities can combine expertise to strategically identify charging sites, garner consumer insights, devise loyalty programs, and create technology to manage charging systems.

Read more: https://www.indiasmartgrid.org/viewnews.php?id=5771

Hero Electric to Deploy 1,000 Electric Scooters to Tech Logistic Company

Hero Electric has collaborated with EVIFY, a tech-enabled electric vehicle-based logistics company, provide them with 1,000 electric scooters in the next two years. The first 50 units are already in production. Additionally, Hero Electric will also deliver 500 EVs which will be deployed by EVIFY in multiple Tier-II and Tier-III cities by the end of the year. This partnership will help to reimagine the EV logistics landscape in India.

Read more: https://www.indiasmartgrid.org/viewnews.php?id=5772

LG Chem has Developed a Flame-Retardant Plastic That Can Delay Fires in EVs

LG Chem, a subsidiary of LG Corp. has developed a highly heat-resistant plastic material that can delay thermal runaway in lithium-ion batteries, allowing you to take measures to prevent damage to you and your family. This comes at a time when there have been several reports of electric vehicles burning in India, injuring several people and even resulting in deaths. The plastic material from the company can prevent the spread of flames caused by thermal runaway for more than 400 seconds even at 1000-degree Celsius temperature.

Read more: https://www.indiasmartgrid.org/viewnews.php?id=5773

Honda Developing Three New Electric Vehicle Platforms By 2030

Honda Motor plans to build millions of electric vehicles (EV) by 2030 using three new dedicated platforms, with one to be jointly developed with U.S. partner General Motors. Honda will introduce an electric mini commercial vehicle in Japan in 2024, built on a new small EV platform, which will be followed by full-size electric model in North America in 2026, on a new large platform.

Read more: https://www.indiasmartgrid.org/viewnews.php?id=5774
Nissan Plans its 1st EV With Solid-State Battery in 2028

Japanese automaker Nissan has unveiled its first prototype production facility for all-solid-state battery cells. Nissan aims to launch an EV with all solid-state batteries developed in-house by fiscal 2028. With this, the all-solid-state batteries can be reduced to $75 per kWh in fiscal 2028 and to $65 per kWh thereafter, placing EVs at the same cost level as gasoline-powered vehicles. All-solid-state batteries are expected to be a game-changing technology for accelerating the popularity of electric vehicles.

Read more: https://www.indiasmartgrid.org/viewnews.php?id=5778

ENERGY STORAGE

Aura Power Gets Permits for 190 MW of UK Battery Storage

UK solar and energy storage developer Aura Power has obtained planning permissions for two battery storage projects in the UK, representing a total of 190 MW. In the first quarter of 2022, a 100 MW project at Newburn Bridge Road, Blaydon was given the green light by Gateshead Council and a 90 MW scheme close to Drakelow was approved by South Derbyshire Council. Construction of the facilities is expected to start by the end of the year 2022 and to be completed in between 6 and 12 months. The projects are part of its development pipeline of over 1 GW of battery storage in the UK.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5776

Construction Starts on 50 MW Scottish Battery Project

Zenobe has started construction a 50 MW/100 MWh battery storage project, which is the first such facility to connect directly to the transmission system in Scotland. Centrica, Fluence and H&MV have been chosen by Zenobe as the suppliers for the project in Wishaw, which is being financed by Santander UK. The site will enable 640 GWh of renewable generation to travel from north to south over the next 15 years. The battery is the first ever to be used as part of National Grid ESO’s Constraints Management pathfinder project. The project is expected to go live by the end of 2022.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5777

German Consortium to Develop Digital EU Passport for Batteries

A consortium of eleven German companies, including battery makers, carmakers and research institutes, are partnering to develop the first digital passport which should ensure that batteries in Europe comply with environmental and social standards. The digital passport will be developed as part of a pilot project, known as the Battery Pass, which has received a grant of EUR 8.2 million (USD 8.92m) from Germany’s Ministry of Economic Affairs and Climate Action. As part of the pilot project, the partners will seek to map out content and technical standards that span the entire value chain and enable the exchange of basic information and technical data about the sustainability of the battery supply chain. The digital battery passport will be used in the automotive industry.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5778

SDG&E Completed Ramona Microgrid in Partnership with CAL FIRE and US Forest Service

San Diego Gas & Electric (SDG&E) has completed the Ramona microgrid, one of four planned microgrids within the High Fire Threat District. The Ramona facility will provide backup power to the Ramona Air attack base, home to CAL FIRE and US Forest Services aerial firefighting assets dedicated to protecting rural communities. The microgrid produces zero emissions as it’s powered by 500/kW/2000 kWh of battery storage. It was built in collaboration with the two agencies and is part of the SDG&E’s ongoing commitment to keep essential resources powered during Public Safety Power Shutoffs (PSPS) and other emergency situations.

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RENEWABLE ENERGY AND MICROGRIDS

Sumitomo and NEDO Completed Microgrids

The New Energy and Industrial Technology Development Organization (NEDO) and Sumitomo Electric Industries, Ltd. have successfully completed a first of its kind microgrid project in California. The two firms completed a demonstration project in the U.S. State of California to improve the power quality of the grid. This includes the establishment of a microgrid on a commercial power distribution network inclusive of 66 customers, operation of a large-scale stationary storage battery, the Redox Flow Battery. It is the first time in the U.S. and Japan that a microgrid has been operated on a commercial distribution network with the storage batteries as the main power source, bracing for a power outage.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5779

37 New Renewable Energy Projects to Power Amazon’s Operations Across Eight Countries

E-commerce giant Amazon has announced 37 new renewable energy projects worldwide, including solar, wind, and battery integrated projects, totaling 3.5 GW of clean energy capacity, in line with its target to achieve 100% renewable energy to power its operations by 2025. The new projects will increase the capacity of Amazon’s renewable energy portfolio by nearly 30%, from 12.2 GW to 15.7 GW, and bring the number of renewable energy projects to 310 across 19 countries. The 37 new projects announced are located across the U.S., Spain, France, Australia, Canada, India, Japan, and the United Arab Emirates. They include three new wind farms, 26 new solar farms, and eight new rooftop solar installations at its buildings. Out of 37 new projects, 23 are spread across 13 states in the U.S. This includes Amazon’s largest capacity for renewable energy project announced to date a 500 MW solar farm in Texas.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5781
GREEN HYDROGEN

Gujarat Gas and NTPC Partner for Green Hydrogen Blending in PNG at NTPC Kawas

Gujarat Gas and NTPC have joined hands to promote a new initiative of green hydrogen blending in Piped Natural Gas (PNG) at National Thermal Power Corporation (NTPC) Kawas. The project is a pioneering effort for both the organizations and first of its kind in the country. This is a step towards the decarbonization of the residential segment and self-sufficiency for energy requirements of the nation. Green hydrogen will be produced by the process of electrolysis of water using 1 MW floating solar project of NTPC Kawas. This will be blended with PNG in predetermined proportion and will be used for cooking applications in NTPC Kawas township.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5786

Sunshot Plans 800 MWh Battery, Green Hydrogen hub in Western Australia

Australia’s Sunshot Energy is proposing to build a new battery and green hydrogen industrial hub in Western Australia powered by renewable energy and with the potential to produce green ammonia and urea. The project was unveiled by Western Australia’s government, which pledged to provide up to AUD 1 million (USD 752,300/EUR 676,100) to fund the feasibility study for the project. The government estimates that the project, if it prove feasible, could create AUD 730 million of new investment in green industries and decarbonisation initiatives. The renewable energy hub could also help to attract new industries to set up in Collie including processing of critical minerals.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5783

L&T, IIT Bombay Collaborate to Develop Green Hydrogen Technology

Engineering and construction conglomerate Larsen & Toubro (L&T) entered into a pact with the Indian Institute of Technology Bombay, India to carry out a joint research and develop the green hydrogen technology. Hydrogen when produced through electrolysis process using renewable energy is known as green hydrogen which has no carbon footprint. L&T signed an agreement with the Institute of Technology and research institution, to jointly pursue research and development work in the green hydrogen value chain.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5784

Green Hydrogen International (GHI) Signs MOU with Hydrogen Optimized for Proposal to Build GW Scale Water Electrolyzer Factory in Texas

GHI and Hydrogen Optimized, a subsidiary of Key DH Technologies Inc., have signed a Memorandum of Understanding (MOU) for the proposed development of a large electrolyzer manufacturing facility in Texas. The factory will produce Hydrogen Optimized’s RuggedCell™ water electrolyzers for GHI’s planned Hydrogen City project. The proposed RuggedCell™ manufacturing facility will be built out in stages, with an ultimate target of 5 GW a year of electrolyzer production. GHI intends to purchase the facility’s entire output for the first 10 years of operation to supply its Hydrogen City project.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5785

SMART CITIES

Centralised Smart City Management Utilus Platform Launched for Smart Poles

Smart city technology provider Iveda has launched smart pole technology that brings together all of its solutions in one platform. Once light poles are equipped with the Utilus platform, they can communicate with each other and establish a network that can provide a range of smart city applications. A pilot project of the pole is scheduled to be deployed in the South African city of Johannesburg. Utilus consists of a smart power management and wireless mesh communications network with wifi, 4G and 5G small cell capabilities and other wireless protocols as required. Utilus can combine video surveillance, artificial intelligence-based video analytics capabilities, the Iveda SPS smart power system and Iveda Pinpoint’s location based trackers and smart sensors.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5787

Tamil Nadu’s First Integrated Smart City Project Launched

The first of its kind project in the country with 150 plus world class amenities, including a helipad, the Smart City would help the company to promote projects on plots in G Square City, Coimbatore, Tamil Nadu, India. It is located along the Salem-Kochi Highway, shall be the first Integrated Smart City in Tamil Nadu encompassing 1,663 villa plots and 26 commercial plots. Coimbatore is part of the Smart City Mission undertaken by the Ministry of Housing and Urban affairs. This project proposed school, hospital, bank, mall and convenience store that is touted to be a smart community project, which would integrate infrastructural development and technological advancement.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5788

STANDARDS AND CYBER SECURITY

IRENA issued New Report on Grid Codes for Renewable Energy

The International Renewable Energy Agency (IRENA) has launched a new report on grid codes for renewable powered systems. The report contains the latest developments and good practices to develop grid connection codes for power systems with high shares of variable renewable energy (VRE) – solar photovoltaic (PV) and wind. There is an urgent need to adopt clean energy solutions to cope with growing demand and replace existing polluting generators. This may lead to almost 100% renewable power in some countries before mid-century.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5739

First Cybersecurity Testing Recommendations for DER and Inverter Based Resources, USA

Underwriter Laboratories (UL) and the National Renewable Energy Laboratory (NREL) will complete an outline of investigation as a precursor to the first cybersecurity certification standard for distributed energy resources (DER) and Inverter Based Resources (IBR). The investigation will be conducted by UL, which delivers testing, inspection and certification (TIC) alongside the U.S. Department of Energy’s (DOE’s) NREL. It will enable a standard that applies to energy storage and generation technologies on the distribution grid. This extends to photovoltaic (PV) inverters,
electric vehicle (EV) chargers, wind turbines, fuel cells and other resources essential to advancing grid operations.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5740

HBKU, Qatar and Iberdrola Collaborate on Smart Grid Cybersecurity

Hamad Bin Khalifa University (HBKU) will collaborate with Iberdrola Innovation Middle East (ME) on research and development into cybersecurity for the smart grid. The two are partnering in the hopes of advancing high-impact innovation in sustainable energy. HBKU, through its College of Science and Engineering (CSE), and Iberdrola Innovation ME will both avail faculty, staff, and resources for a research project focused on security techniques for power line communications.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5741

Mississauga Goes Green as the First Canadian City to Receive Prestigious ISO 50001 Certification for Energy Management

The City of Mississauga announced that it has successfully achieved the International Organization for Standardization (ISO) 50001:2018 certification from ABS Quality Evaluations, Inc. (ABS QE) for its Energy Management Systems at Frank McKechnie Community Centre. Mississauga is the first municipal facility in Canada to achieve this certification. ISO 50001 is an internationally-recognized standard. This certification is given to products, services or systems where a strategic and systematic energy management system with proven energy cost savings has been implemented.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5742

Energy Conservation Architecture to be Mandatory for Japan Real Estate from 2025

The Cabinet of Japan approved the Bill for the Partial Revision of the Law Concerning the Improvement of Energy Consumption Performance of Buildings to Contribute to the Realisation of a Decarbonized Society. The law accelerates energy-saving measures in the building sector in order to achieve carbon neutrality by 2050 and a 46% reduction in greenhouse gas emissions by 2030 compared to 2013 levels. Conformity to energy conservation standards, which are currently limited to non-residential buildings with a floor area of 300 square metres or more, will be mandatory for all new residential and non-residential buildings from 2025 onward.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5743

DISRUPTIVE TECHNOLOGIES

Blockchain and Oracles Can Help Clean Energy Transition, Study from Tecnalia Research and Chainlink Labs Claims

New dynamics in the energy sector are compelling providers to shift to sustainable and clean energy to combat climate change. While many challenges accompany the clean energy transition, a report claims that blockchain has the potential to help the industry achieve its climate action goals.

The report, titled “Managing Climate Change in the Energy Industry With Blockchains and Oracles,” was conducted by Tecnalia Research and Chainlink Labs. It outlines how blockchain features like tokenization, hybrid smart contracts and blockchain oracles can be applied to the energy sector to manage climate change.

According to the research, blockchains can be applied as a database in the settlement layer, smart contracts can be used to develop the application layer, and oracles can create connectivity in a specialized computation layer. Through these, the report highlighted various blockchain use cases like tokenizing carbon credits and smart grid management and explained that these can contribute to the clean energy transition.

Read more: https://www.indiasmartgrid.org/viewnews.php?id=5790

Australian Energy Market Operator and Energy Web Partner on Blockchain-based VPP Pilot

The project taking place in Southern River, Perth in Western Australia, is an initiative of Energy Web in partnership with the utilities Western Power as the project lead and Synergy, the Australian Energy Market Operator (AEMO), and the Western Australian government.

Project Symphony aims to orchestrate approximately 900 distributed resources across 500 homes and businesses into a VPP to generate and store electricity at a local level. The project will allow for the aggregation of all generated energy, optimised storage, distribution, and sale of that energy in a manner similar to a traditional power plant.

Read more: https://www.indiasmartgrid.org/viewnews.php?id=5791

Stedin to Deploy Blockchain Energy Asset Management Solution

The partnership aims to deploy a future-proofed solution for managing assets including both DSO-native devices such as smart meters and distribution automation devices and consumer/prosumer distributed energy resources.

As part of the collaboration, Energy Web and Stedin will work on a decentralised asset management system, which will initially be tested on intelligent electronic devices for substation automation.

Read more: https://www.indiasmartgrid.org/viewnews.php?id=5792

Glacier, A USA based Firm Raises USD 4.5 Million to Combat Climate Change with AI-Powered Recycling Robots

Glacier announced that it has launched out of stealth and raised USD 4.5 Million in seed funding. The round was led by New Enterprise Associates (NEA), with participation by prominent leaders in industry, sustainability, and technology, including former GE CEO Jeff Immelt, climate investor and former climate policymaker Sierra Peterson, and former Uber CPO Manik Gupta.

Glacier produces an industry-leading recycling robot—a combination...
of cutting-edge AI and robotics—that sorts over 30 different item types. Glacier’s technology is entering the market at a critical time: the $116 Billion US recycling industry is urgently looking for innovation to address surging demand for recycled feedstock, as well as overcome major feedstock supply shortages caused by aging infrastructure and a dwindling labor pool. By increasing recycling rates, Glacier’s technology is also instrumental in the fight against climate change. This is more critical than ever, with the UN warning just earlier this month that humanity needs to act “now or never” to limit global warming.

Read more: https://www.indiasmartgrid.org/viewnews.php?id=5793

AI Pilot to Ease EV Electricity Demand

Canada’s IESO, OEB, BluWave-ai and Hydro Ottawa will collaborate to pilot the use of artificial intelligence (AI) to coordinate electric vehicle (EV) charging in Ottawa during peak electricity demand. To meet growing energy needs created by EVs in the Ottawa area, the Independent Electricity System Operator (IESO) and the Ontario Energy Board (OEB) are supporting a new pilot project. The project will be run by BluWave-ai, a renewable energy AI company, and Hydro Ottawa, a regulated electricity distribution company, to use AI and manage EV charging during peak demand periods.

Read more: https://www.indiasmartgrid.org/viewnews.php?id=5794

SMART WATER AND SMART GAS

NTPC Ties up with Delhi Jal Board to Convert Waste into Energy

State-owned NTPC has partnered with Delhi Jal Board to convert sludge produced in the latter’s sewage treatment plants into energy. In Delhi-NCR alone, Sewage Treatment Plants (STPs) produce up to 800 MT of sludge per day. The disposal of the sludge is a major challenge as it contributes to environmental pollution.

“In an endeavor to reduce the carbon footprint, NTPC Ltd, India’s largest integrated energy company has come together with Delhi Jal Board (DJB) to utilize the sludge produced in the STPs of DJB

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5795

National Mission for Clean Ganga to Sell Treated Sewage Water to Power Plants; Plan to Improve Water Quality, Earn Money

The National Mission for Clean Ganga (NMCG) is looking forward to selling treated sewage water to power plants along the Ganga, Director-General G. Ashok Kumar has revealed.

This move is one of the several endeavours under the six verticals identified under ‘Arth Ganga’, where NMCG-assisted developments along the Ganga can be monetised to benefit the local community and ensure a circular economy.

Banking on completed Sewage Treatment Plants (STPs) in the pipeline, Ashok Kumar, stated that the NMCG has identified 24 locations with a power plant nearby. “Of these, 11 locations are where there is a possibility of selling treated water. We have been holding meetings with the Power Ministry and the National Thermal Power Corporation (NTPC) discussing the issues,” he further added.


Ministry of Jal Shakti Sets Up National Dam Safety Authority

More than three months after the Dam Safety Bill was passed by the Parliament, the Ministry of Jal Shakti has finally set up the National Dam Safety Authority (NDSA) Member (Design & Research), Central Water Commission, will be heading the NDSA, the Ministry of Jal Shakti.

The Dam Safety Act 2021 passed by the Parliament in December 2021 provides for surveillance, inspection, operation, and maintenance of certain specified dams across the country with a provision of imprisonment up to two years, or a fine, or both, for an offence under it.


NITI Aayog Bats for Pricing Freedom on Natural Gas in India

In a step towards India’s goal of achieving a gas-based economy, the NITI Aayog has lined up a proposal to give complete marketing and pricing freedom to all-natural gas produced in the country, including nominated gas fields.

The planning body is batting for selling all-natural gas through the Indian Gas Exchange (IGX), the country’s first natural gas exchange, where the buyer and seller can decide on prices in a transparent manner.

Read More: https://www.indiasmartgrid.org/viewnews.php?id=5796

GAIL, HPCL to Infuse Rs 17,000 crore in CNG Infrastructure

GAIL, its joint venture (JV) company Bengal Gas Company and Hindustan Petroleum Corporation have planned investment in various CNG projects in West Bengal.

The companies will make an investment of Rs 17,000 crore over a period of the next five years. The projects include piped gas distribution and the setting up of Compressed Natural Gas (CNG) stations. HPCL will be investing Rs 8,000 crore in City Gas Distribution and CNG station Infrastructure. GAIL and Bengal Gas will jointly invest Rs 9,000 crore to set up the pipeline. The CNG pipeline from Durgapur is expected to reach Kolkata by September 2023. Of the 315 km long Durgapur to Halda pipeline, only 60-70 km have been completed in patches.

Read more : https://www.constructionweekonline.in/projects-tenders/gail-hpcl-to-infuse-rs-17000-cr-in-cng-infra
Germany Gears Up in Renewables

Germany changes its energy policies fundamentally after Russia invades Ukraine.

- Germany is aiming to get 100% of its power from renewables by 2035.
- Germany will add 10 GW of sun and wind power in 2022 to its capacity.
- Germany will triple its solar capacity by 2030 while doubling offshore wind.
- And boosting onshore wind to 30 gigawatts.

Source: WEF
## Ongoing Tenders

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