



SMART GRID Bulletin

August 2022

The India Evening @CIGRE 2022 on 31st August 2022 by ISGF, CIGRE India and CBIP



Cigre President, Michel Augonnet addressing the audience

ISGF, CIGRE India and CBIP organised The India Evening @CIGRE 2022 on 31st August 2022 at LES SALONS HOICHE in Paris. The Indian Evening was planned as part of the week long CIGRE Session scheduled from 28 August to 02 September 2022 in Paris. The Dinner Reception Co-host Partners were Hitachi Energy, Power System Operation Corporation Limited (POSOCO), NTPC, Power Grid Corporation of India Limited (PGCIL), Sterlite Power Transmission Limited and General Electric Company. The Silver Partners of the Dinner Reception were Krishna Electrical Industries Limited, CTR Manufacturing Industries Private Limited and Power Finance Corporation Limited (PFC). The reception was attended by over 250 senior officials from around the world.

International Council on Large Electric Systems (CIGRE) is a hundred-year-old 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 of about 100 countries to interact and exchange technical knowledge with top international experts on various subjects related to power systems in the world. About 8,000 experts from around the world participated where 300+ technical papers were discussed. A world class exhibition also took place at the venue, which provides the opportunity to discover new products, services, tools, equipment and materials as well as the most advanced solutions in the field of power systems.

India has been participating in CIGRE Session since very beginning; and from 2012 onwards India's participation has grown tremendously. For the last edition of CIGRE Session in 2018, we had more than 140 delegates from India. We have also been conducting an Indian Dinner at CIGRE; and for the 2018 event more than 280 senior officials from around the world participated at the Indian Dinner held at Hyatt Regency Etiole, Paris.

For CIGRE 2022, the Indian Delegation comprised of 150 plus Senior Officers from power ministries and energy departments in states; Electricity Regulatory Commission Chairmen and Members; CEOs and Senior Officers of Utilities; and Senior Officers of technology companies. Next edition of CIGRE Session is scheduled from 25 - 30 August 2024 in Paris

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Glimpses of the India Evening @CIGRE 2022



Tutorial on Blockchain Applications for Power Sector as part of CIGRE C5 Working Group



A Tutorial Session on Blockchain Applications for Power Utilities was conducted successfully @CIGRE 2022 by Reena Suri, ISGF and Anant Venkateswaran, Hitachi Energy

Appointments and Transfers

Rajesh Sharma has been appointed as the member of the Rajasthan Electricity Regulatory Commission

Hemant Kumar Jain has been appointed as the member (Judicial) of the Rajasthan Electricity Regulatory Commission

K Venkatesan has been appointed as the member of the Tamil Nadu Electricity Regulatory Commission

Join the Indian Delegation to Enlit Europe scheduled from 29 November to 01 December 2022 in Frankfurt, Germany

Enlit Europe formerly known as European Utility Week (EUW) is the largest event in Europe for the entire smart utility sector, accumulating over 10,000 international smart energy stakeholders and 500+ exhibitors. This 3-day event offers a notable multi-track strategic conference programme, a free 3-day utility case study programme on the exhibition floor and a highly revered innovation hub. The 2022 edition scheduled from 29 November to 01 December 2022 in Frankfurt, Germany, will see the launch of new initiatives including the Energy Revolution, Intelligent Buildings and a revamped Innovation Programme, all under one roof. There are special discounted rates for delegates and exhibitors from India.

Besides Enlit Europe, the schedule of Indian Delegation will include multiple site visits to Smart Grid Projects in Germany.

To join the Indian Delegation to Enlit Europe, please contact Reena Suri: reena.suri@indiasmartgrid.org.

Find out more here: enlit-europe.com/welcome

KEY CONTACTS

Editorial Advisor

Reji Kumar Pillai

Managing Editor

Reena Suri, ISGF

Editor

Sneha Singhania, ISGF

Key Contributors from ISGF

Anand Singh

Aashima Chaney

Bindeshwary Rai

Bhushan Khade

Karnam Bala Subramanyam

Parul Shribatham

Suddhasatta Kundu

(For suggestions and feedback on the ISGF SMART GRID Bulletin, please write to contactus@indiasmartgrid.org)

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Smart Grid Updates: Policy, Regulations & Standards

INDIA

Ministry Amends Guidelines To Procure Round-The-Clock Renewable Power

The Ministry of Power has amended the tariff based competitive bidding process guidelines to procure round-the-clock power from grid connected renewable energy projects. As per the latest amendments, renewable power generators must supply dispatchable power complemented with power from any other source round-the-clock, maintaining at least 90% availability annually. They also must maintain 90% availability monthly for at least 11 months in a year and 90% availability during peak hours

Renewable generators can combine storage to achieve minimum annual availability

Read More: <https://indiasmartgrid.org/viewnews.php?id=6072>

Rules Issued For Bundling Renewables And Storage With Thermal And Hydropower Projects

The Ministry of Power has issued guidelines for competitive procurement of renewable power by thermal and hydro generators under the Generation Flexibility Program. They seek to standardize processes and provide a risk sharing framework among stakeholders involved in renewable power procurement under the Flexibility Program. The goal is to encourage investments and ensure enhanced bankability of projects and profitability for investors.

The program intends to allow flexibility in the generation and scheduling of thermal and hydro power stations by bundling renewable energy and storage

Read More: <https://indiasmartgrid.org/viewnews.php?id=6071>

Electric Vehicle Battery Standards Amended For Enhanced Safety

The Ministry of Road Transport and Highways has amended battery safety standards to prevent fire incidents in electric two-wheelers (E2W). The amendments include additional safety requirements related to battery cells, on-board charger, design of battery packs, and thermal propagation due to internal cell short circuits leading to a fire. The amendments were based on the report by an expert committee constituted by the Road Transport Ministry. The Ministry has also issued draft notification GSR 659 (E) to amend Sub-rule 4 of Rule 124 of Central Motor Vehicle Rules (CMVR) 1989 for mandating Conformity of Production for traction batteries used in electric power train vehicles.

The amended mandate and proposed regulation will be effective from October 2022

Read More: <https://indiasmartgrid.org/viewnews.php?id=6070>

New Battery Waste Management Rules Mandates Recycling By Local Producers And Importers

The Ministry of Environment, Forest, and Climate Change has published the Battery Waste Management Rules, 2022 ensuring environment-friendly management of waste batteries, including electric vehicle (EV), portable, and automotive and industrial batteries. The ministry has based the new rules on the Extended Producer Responsibility (EPR) concept under which the producers including battery importers would collect and recycle waste batteries. They will also be responsible for using recovered materials from waste in to new batteries.

The notification of new rule is a transformative step aligning with Government of India's announcement to promote circular economy

Read More: <https://indiasmartgrid.org/viewnews.php?id=6068>

Karnataka issues Green Energy Open Access Regulations

The Karnataka Electricity Regulatory Commission (KERC) has issued the draft 'Green Energy Open Access Regulations, 2022.' As per the proposed regulations, the consumers will be eligible for open access through the intrastate transmission system of the state transmission utility (STU) or distribution systems of distribution licensees within the state. Consumers (except captive consumers) who have a sanctioned load of 100 kW and above will be eligible for open access under the proposed regulations. Banking will also be permitted every month on payment of applicable charges and the banked energy will not be allowed to be carried forward to the subsequent months

Green energy open access consumers will have preference over normal open access consumers in terms of allotment priority

Read More: <https://indiasmartgrid.org/viewnews.php?id=6066>

Uttar Pradesh Proposes To Install 16 GW Of Solar Capacity In The Next Five Years

The government of Uttar Pradesh has issued the draft Solar Energy Policy 2022. The policy will be valid for five years or until the government notifies a new policy, whichever is earlier. The policy proposes to achieve 16 GW of solar power projects by 2026-27 which would include 10 GW of utility scale solar power projects, 4 GW of rooftop solar projects and 2 GW of distributed solar projects. The Uttar Pradesh Power Corporation Limited (UPPCL) would purchase solar power to meet the renewable purchase obligation (RPO) targets as determined by the state regulator.

The Uttar Pradesh New and Renewable Energy Development Agency (UPNEDA) would act as nodal agency for implementing the proposed policy

Read More: <https://indiasmartgrid.org/viewnews.php?id=6065>

MNRE Proposes Group And Virtual Net Metering For Rooftop Solar In Rural Areas

The Ministry of New and Renewable Energy (MNRE) has invited feedback from stakeholders on its draft standard operating procedures for Virtual Net Metering and Group Net Metering to overcome the challenges in providing rural households with rooftop solar power. The ministry has proposed that instead of households installing individual systems on their rooftops, they can be aggregated and installed at a single place i.e. on a land either taken on lease or which belongs to panchayats. The plants can be developed in RESCO or CAPEX mode with facility of net metering available to individual households.

The standard operating procedures provides the formats for connection agreement, application for net metering, technical feasibility analysis, metering and synchronization, energy accounting and settlement

Read More: <https://indiasmartgrid.org/viewnews.php?id=6064>

INTERNATIONAL

California Exempts Energy Storage From Subdivision Rule To Accelerate Deployment

The new law, Assembly Bill 2625, exempts energy storage projects from the leases or easements associated with the construction, sale or lease of an energy storage system from the requirements of the state's Subdivision Map Act, which creates and defines the authority of local legislative bodies to approve, disapprove or set conditions for subdivision parcel maps and any modifications to such maps. The new bill will help energy storage projects to move through the development process without consulting local zoning authorities thereby facilitating efficient and quick deployment of energy storage projects in the state of California.

California will need to add at least 10,000 MW of energy storage within the next decade

Read More: <https://indiasmartgrid.org/viewnews.php?id=6063>

TNB, NUR Power Ink Deal For Solar Installation, Green Energy Initiatives

Tenaga Nasional Berhad (TNB) and N.U.R. Power Sdn. Bhd. (NUR Power) entered a partnership for the installation of solar power and other smart energy technologies for the distribution company's customers in the Kulim Hi-Tech Park (KHTP) in the state of Kedah. Aside from installing rooftop solar, the memorandum of understanding signed by the companies also mandated the exploration of large-scale solar solutions and deployment of commercial electric vehicles and charging ecosystems for all the customers in the area.

Read More: <https://indiasmartgrid.org/viewnews.php?id=6062>

Government of Nigeria Launches Energy Transition Plan

The federal government has launched Nigeria's energy transition plan as a significant path to achieving universal energy access by 2030 and a carbon-neutral economy by 2060. The plan was designed to tackle energy poverty and climate change crisis and deliver sustainable development goal seven (SDG7) by 2030 and net zero by 2060.

Nigeria would need to spend USD 410 billion above business as usual spending to deliver a transition plan by 2060, which translates to about USD 10 billion per year.

Read More: <https://indiasmartgrid.org/viewnews.php?id=6061>

Nigeria has set up an inter-ministerial energy transition implementation working group and is currently engaging with partners to secure an initial USD10 billion support package ahead of COP27

European Commission approves Greek Scheme Under Recovery And Resilience Facility To Support Development Of Electricity Storage Facilities

The European Commission has approved, under EU State aid rules, a Greek measure with an estimated budget of 341 million euro to support the construction and operation of storage facilities in the electricity system. The scheme notified by Greece will promote the establishment of several electricity storage facilities, with a joint capacity of up to 900 MW, connected to the high-voltage network. The projects will be selected through a transparent and non-discriminatory bidding process. The award of the contracts to the selected projects should take place before the end of 2023 and the storage facilities should be completed by the end of 2025.

Read More: <https://indiasmartgrid.org/viewnews.php?id=6060>

The measure aims at allowing a smooth integration in the Greek electricity system of an increasing share of renewable energy coming from wind and solar sources

US DOE launches USD 10.5 billion Grid Resilience and Innovative Partnerships Program

The Department of Energy (DoE) is seeking comments on its plan to provide USD 10.5 billion over five years for projects that prevent power outages and improve grid resilience, enhance grid flexibility, and demonstrate new approaches to power sector infrastructure resilience and reliability. The Grid Resilience and Innovative Partnership Program funding will be available to states, tribes, local governments, public utility commissions, grid operators, utilities and others. The planned funding includes USD 2.5 billion for grid resilience grants, USD 3 billion for smart grid grants and USD 5 billion for grid innovation efforts.

Read More: <https://indiasmartgrid.org/viewnews.php?id=6059>

Smart Grid Updates: Projects and Technology

GRID MODERNIZATION

Starwood Energy and TS Conductor Announce \$100 Mn Joint Venture

Starwood Energy Group Global LLC ("Starwood Energy"), a leading private investment firm focused on energy infrastructure, and TS Conductor Corp. ("TS Conductor"), a pioneer in high-performance transmission and distribution wires for electricity grids, announced the creation of a \$100 million joint venture, Gridline Finance InvestCo, LLC. The joint venture unlocks an innovative method for financing much-needed grid modernization, including reconductoring existing lines and building new lines, to accelerate the energy transition and integrate more renewable generation. Gridline Finance brings to transmission and distribution infrastructure a similar energy performance contracting (EPC) approach that energy service companies (ESCOs) originally popularized for energy efficiency upgrades.

Read more: <https://indiasmartgrid.org/viewnews.php?id=6057>

Canada Invests in Smart Energy Benchmarking to Decarbonize Electricity Grid

Canada announced an investment of \$815,115 for the Smart Grid Innovation Network Canada (SGIN) to support electric utilities across Canada on the decarbonization and expansion of Canada's electricity grid through the Smart Energy Benchmarking Project. The project will support electric utilities across Canada in preparing for the energy transition by engaging with Canadian utilities on the development of a Smart Energy Scorecard that will serve as a benchmark for their ambitions, activities and progress toward a clean, smart and electrified energy future.

Read more: <https://indiasmartgrid.org/viewnews.php?id=6056>

US DOE Announces \$60 Million to Advance Clean Hydrogen Technologies and Decarbonize Grid

The U.S. Department of Energy (DOE) announced \$40 million in funding to advance the development and deployment of clean hydrogen technologies. To further decarbonize the grid, DOE is also launching a \$20 million university research consortium to help states and Tribal communities successfully implement grid resilience programs and achieve decarbonization goals. By lowering the costs of clean hydrogen and leveraging industry investments in clean technologies.

Read more: <https://indiasmartgrid.org/viewnews.php?id=6055>

SMART METERING

DEWA Analytics Platform To Enhance Smart Meter Management

As part of its smart grid programme, Dubai Electricity and Water Authority (DEWA) has launched a big data and analytics platform with the aim of improving operations and management of the utility's assets and smart meters. According to DEWA, their latest platform integrates smart grid applications and operational technologies to support the processing of large amounts of data while providing fact-based analytics and forecasting for their current and future projects.

Read More: <https://indiasmartgrid.org/viewnews.php?id=6019>

ELECTRIC VEHICLES

Electric Vehicle Charging Centers in Telangana to be Set up by December

The Government of Telangana is encouraging electric vehicles and giving incentives to those purchasing these vehicles. In order to encourage EVs, the state government is setting up charging centers on a large scale across the state. As there is a sharp increase in the sale of electric vehicles in the state and till now more than 10000 electric vehicles are plying on city roads. The government has a plan to set up charging center at a distance of 25 km on national highways. About 600 charging centers will be available in Greater Hyderabad by the end of December. By this, the total number of charging centers across the state will touch 1000.

Read more: <https://indiasmartgrid.org/viewnews.php?id=6054>

US-based ElectronEV to Enter Electric Vehicle Segment in India

US-based ElectronEV announced to enter the electric vehicle space in the Indian market. The EV company has planned to bring in electric commercial vehicles such as delivery vans, trucks and buses in the country. It also shared that it is looking out to cater to both the B2B and B2C markets with its products and end-to-end mobility solutions. The EV company plan to introduce the company's proprietary EV technology through its products and end-to-end mobility solutions for markets like India, South East Asia, Australia, and Europe.

Read more: <https://indiasmartgrid.org/viewnews.php?id=6053>

Tirex to Supply EV Chargers at HP's Retail Outlets in Gujarat and Rajasthan

Hindustan Petroleum (HPCL) has awarded a contract to Tirex Transmission, an EV charging solutions provider, to set up more than 60 EV chargers at its fuel stations in Gujarat and Rajasthan. Tirex shall supply two types of DC fast chargers for this project – one rated between 25 to 30 kW with a single connector option of CCS2 and the other type is rated between 50 to 60 kW, with combinations of connectors per the requirement. These chargers will be compatible with most new-age electric vehicles available in India. This contract adds another 3MW to Tirex's existing supply of more than 20MW worth of chargers across India.

Read more: <https://indiasmartgrid.org/viewnews.php?id=6052>

Jio-Bp Partners with Hero Electric to Drive Two-Wheeler EV Adoption in India

Reliance's Jio-bp has partnered with Hero Electric to strengthen mobility solutions for electric two-wheelers. Under the new partnership, the customers of Hero Electric are expected to get access to the widespread charging and swapping network of Jio-bp, which is also open to other vehicles. Jio-bp is operating its EV charging and swapping stations under the brand Jio-bp pulse. With the Jio-bp pulse app, customers can easily find stations nearby and charge their electric vehicles.

Read more: <https://indiasmartgrid.org/viewnews.php?id=6051>

SG Updates: Technology & Projects (Contd...)

Honda, Hindustan Petroleum Begin Battery Swap Service for EVs in India

Honda Power Pack Energy India Private Limited (HEID), a subsidiary of Honda Motor Company has partnered with Hindustan Petroleum Corporation Limited for battery swap service. HEID has started the battery swap services at the Hindustan Petroleum stations. HEID was established with an aim to support battery swap service in India starting with electric auto rickshaws. At the current stage, the service will be provided to rickshaw drivers enabling them to stop by at the nearest battery stations and swap the discharged batteries with charged ones.

Read more: <https://indiasmartgrid.org/viewnews.php?id=6050>**Honda, LG to Build \$4.4 Billion Electric Vehicle Battery Plant in USA**

Major South Korean battery maker LG and Japanese automaker Honda are investing \$4.4 billion in a joint venture in the United States to produce batteries for Honda electric vehicles in the North American market. The plant's site is still undecided, but construction will begin in early 2023, with mass production of advanced lithium-ion battery cells to start by the end of 2025. The joint venture is to be set up this year, with the closing of the deal subject to regulatory approval.

Read more: <https://indiasmartgrid.org/viewnews.php?id=6049>**Lincoln Electric Launches a DC Fast Charge EV Charger Initiative**

Lincoln Electric Holdings announce the launch of an initiative to design and manufacture DC fast charge electric vehicle (EV) chargers for the U.S. EV market. The Company has developed a 50kW DC fast charger power module with a scalable architecture to deliver power levels over 300kW, as well as a single charge port pedestal compatible with CCS-1 vehicles. A production model is planned for 2023 and leverages core manufacturing and engineering capabilities in the Company's Cleveland, Ohio facility.

Read more: <https://indiasmartgrid.org/viewnews.php?id=6048>**Xiaomi in Talks with BAIC to Produce Electric Cars**

Smartphone maker Xiaomi Corp is eyeing an electric vehicle production tie-up with Beijing Automotive Group Co (BAIC), as it faces delays in acquiring a license to make cars on its own. Such partnership among EV startups and traditional carmakers has become increasingly common in China, as state planners have been limiting the issuance of manufacturing licenses to new EV makers in a bid to contain excessive investment. Xiaomi and BAIC are exploring various options including Xiaomi buying a stake in Beijing Hyundai No. 2 plant, which has a license to make cars in China.

Read more: <https://indiasmartgrid.org/viewnews.php?id=6047>**ENERGY STORAGE****Construction Starts on 170 MWh Hybrid Energy Storage Project in Ireland**

Construction has started on a project in Ireland pairing a battery energy storage system (BESS) with a synchronous condenser, developed by Lumcloon Energy and Hanwha Energy. The grid stability plant will provide 170 MWh of energy storage for the

country's national grid and will take two-years to build at a cost of €130 million (USD 129 million). Lumcloon and Hanwha have already worked together to deliver two 100 MW.

Read More: <https://indiasmartgrid.org/viewnews.php?id=6046>**Greece gets State Aid Approval from EU for 900 MW Energy Storage Project**

The EU has approved a plan by the government in Greece to put €341 million (USD 339.5 million) towards a 900 MW energy storage pipeline, under its state aid rules. The European Commission, the EU's executive arm, has approved the Greek state's measure to fund the construction and operation of grid-connected energy storage systems totalling 900 MW. The projects will be selected through a competitive bidding process, with contracts awarded by end-2023 and projects completed by end-2025. The funding equates to €380,000/MW.

Read More: <https://indiasmartgrid.org/viewnews.php?id=6045>**Chilean Utility Colbún Submits Plans for Co-located 1.2 GWh BESS at Solar PV Plant**

Chilean utility Colbún has submitted plans for a solar plus storage project with a 1.2 GWh battery energy storage system (BESS). The solar PV portion of the project, which is being called Celda Solar (Solar Cell), will comprise 700,000 bifacial modules totalling 421.9 MW of power. The attached energy storage will be a 240 MW, five-hour BESS meaning a total capacity of 1,200 MWh, making it one of the largest single projects being planned in the country. The 960-hectare site is part of a public land reserve owned by the state which has been earmarked for energy projects.

Read More: <https://indiasmartgrid.org/viewnews.php?id=6044>**RENEWABLE ENERGY AND MICROGRIDS****Tata Motors Signs PPA with Tata Power to Develop 7.25 MW Onsite Solar Project**

Tata Motors inked a power purchase agreement (PPA) with Tata Power to develop a 7.25 MW onsite solar project at its commercial vehicle manufacturing unit in Jamshedpur, Jharkhand, India. With the signing of the PPA for the deployment of the solar project, the overall solar capacity of the Indian automakers Jamshedpur facility will reach 14 MW. The onsite solar project is expected to generate 442 MU of green electricity and potentially mitigate around 350000 tons of carbon emissions yearly – equaling the plantation of 560000 trees.

Read More: <https://indiasmartgrid.org/viewnews.php?id=6043>**Horizon Power Announces Distributed Energy Resources Management System (DERMS) Rollout for 34 Microgrids**

Horizon Power plans to launch DERMS technology across its microgrids in Western Australia to ease the integration of customer and utility-owned distributed energy resources. Horizon's solution was to integrate a DERMS with its microgrid to manage the community's growing distributed energy resources. Horizon Power will now integrate the technology on a much larger scale across Western Australia by rolling out the DERMS to each of its roughly 34 microgrids, which range from 400 kW to 33 MW, in the region. The DERMS technology rollout will begin in Broome with deployment expected in early 2023. The company plans to deploy the technology in the remainder of its microgrid power systems by mid-2024.

Read More: <https://indiasmartgrid.org/viewnews.php?id=6042>

Tata Power Renewable Microgrid (TPRMG) Limited Collaborates with Small Industries Development Bank of India (SIDBI) to Set Up 1,000 Green Energy Enterprises

TPRMG Limited and SIDBI, have joined hands to launch an innovative program that will see 1,000 green energy enterprises established throughout the nation. The Government of India's vision of Atmanirbhar Bharat will be supported by this initiative as it will foster sustainable entrepreneurship models across the nation leading to empowerment of rural entrepreneurs. Under the collaboration, SIDBI will provide entrepreneurs a "Go REsponsive, ENterprise incentive (GREENi)". Tata Power, through TPRMG, runs one of the largest Microgrid programs in the world and operates solar-based off-grid generating plant with an energy storage system supplying power to remote areas of the country. The company plans to rollout 10,000 Microgrids in the near future. It has installed more than 200 Microgrids, many of which are present in Uttar Pradesh and Bihar.

Read More: <https://indiasmartgrid.org/viewnews.php?id=6041>

Denmark Partners with Germany on 3 GW Bornholm Energy Island

Denmark and Germany have agreed to cooperate on the Bornholm energy island project in the Danish part of the Baltic Sea, with a plan to expand the capacity of the offshore wind hub to 3 GW from 2 GW and connect it to Germany. The energy island is expected to be completed in 2030, when it will be able to power 3.3 million Danish or 4.5 million German households. It will be connected to Germany via a subsea cable and will significantly increase electricity trade between the two countries. At the moment, Denmark and Germany have 1.5 GW and 1 GW of offshore wind capacity, respectively, in the Baltic Sea.

Read More: <https://indiasmartgrid.org/viewnews.php?id=6040>

GREEN HYDROGEN

Lhyfe Deploys Green Hydrogen Solutions in the UK

French green hydrogen multinational Lhyfe has expanded its renewable green hydrogen operations to the UK, marking a key milestone in its pathway to Net Zero. Through its new operation based in Newcastle, the company intends to identify opportunities to deploy production facilities to support the UK's Net Zero ambitions. Having inaugurated its first renewable green hydrogen production plant last year, the company is currently developing more than 90 projects across Europe, including a hydrogen rail demonstrator in Germany. With ambitions for more than 3 GW of electrolysis-generated green hydrogen in operations by 2030.

Read More: <https://indiasmartgrid.org/viewnews.php?id=6039>

POSCO and Greenko ink MoU to Produce Green Hydrogen in India

South Korean steelmaker Pohang Iron and Steel Co. (POSCO) has announced that it has signed a memorandum of understanding with India based renewable energy company Greenko to jointly produce and export green hydrogen in export oriented special economic zones. The companies plan to carryout a feasibility study on green hydrogen production after discovering an appropriate business site by the end of 2022 and POSCO's steel in the development of infrastructure for potential projects. India has an excellent environment for renewable energy production as it has abundant solar and wind resources and excellent power grid infrastructure.

Read More: <https://indiasmartgrid.org/viewnews.php?id=6038>

SMART CITIES

South African Smart City Platform Extends Functionality

The My Smart City platform, which has been rolled out in cities across South Africa, now allows users to compare the performance of different municipal wards to help citizens make more informed choices when buying property. With the new in the city functionality, residents can view the performance metrics of different local municipalities across various categories such as state of the roads, power outages, water supply, waste management and general maintenance of their city. My Smart City creates essential statistical information from citizen input into the platform.

Read More: <https://indiasmartgrid.org/viewnews.php?id=6037>

Bhopal Smart City, India Trials 5G Use Cases Using Small Cell Networks

Telecom operator Vodafone Idea (VI) is conducting a trial on the use of street furniture for 5G small cells and aerial fiber deployment in Bhopal Smart City in India. The pilots are aimed at making cross-sectoral infrastructure more accessible for quick rollout of the 5G networks. Street furniture used in the trial includes traffic signal poles, streetlight poles, smart poles, billboards, direction boards, road signage and city bus shelters. The pilot involves coordination, administrative, permissions, authorization to use and other support from various entities, including MP State Government, Bhopal Municipal corporation, District Collector office, Bhopal Smart City, Bhopal Police, Bhopal City link (bus city service), advertising agencies and other state Government bodies.

Read More: <https://indiasmartgrid.org/viewnews.php?id=6036>

STANDARDS AND CYBER SECURITY

New Australian homes could have to comply with tougher energy performance standards within a year, with ministers set to agree to boost the required rating from six to seven stars. That could cut the thermal energy use of homes by about 25%, experts say. But there's fierce debate about when and how the new regime should begin. The expected change to the national construction code has been welcomed by energy efficiency advocates. They caution, however, that practical change will only come if states and territories back a rapid introduction of the higher standards and enforce their application. They also want the standards for existing homes lifted.

Read More: <https://indiasmartgrid.org/viewnews.php?id=6024>

Government of Canada Launches Second Round of Public Engagements To Establish the Clean Electricity Regulations

Access to reliable and affordable clean electricity for transportation, industrial activities, and heating buildings is key to achieving cleaner air and a net-zero emission economy by 2050. A net-zero emission electricity grid by 2035 is foundational for Canada to build clean energy solutions across the economy.

Formerly known as the Clean Electricity Standard, the federal government has collaborated with the provinces and territories, Indigenous partners, utilities, industries, academics, non-governmental organizations, and interested Canadians in the development of the CER.

Read More: <https://indiasmartgrid.org/viewnews.php?id=6021>

SG Updates: Technology & Projects (Contd...)

A Whole Suite Of New Cybersecurity Regulations And Enforcement Are In The Offing, Both At The State And Federal Level In The U.S. And Around the World

In the United States, a whole suite of new regulations and enforcement are in the offing: the Federal Trade Commission, Food and Drug Administration, Department of Transportation, Department of Energy, and Cybersecurity and Infrastructure Security Agency are all working on new rules. In addition, in 2021 alone, 36 states enacted new cybersecurity legislation. Globally, there are many initiatives such as China and Russia's data localization requirements, India's CERT-In incident reporting requirements, and the EU's GDPR and its incident reporting.

Read More: <https://indiasmartgrid.org/viewnews.php?id=6022>

Electric Vehicle Battery Standards Amended for Enhanced Safety

The Ministry of Road Transport and Highways has amended battery safety standards to prevent fire incidents in electric two-wheelers (E2W). The amendments provide for additional safety requirements related to battery cells, battery management systems (BMS), onboard chargers, battery pack design, and thermal propagation due to internal cell short circuits leading to fires. The amendments were based on the report by an expert committee constituted by the Road Transport Ministry.

Read More: <https://indiasmartgrid.org/viewnews.php?id=6023>

DISRUPTIVE TECHNOLOGIES

Artificial intelligence Could Lower Nuclear Energy Costs

Nuclear power plants provide large amounts of electricity without releasing planet-warming pollution. But the expense of running these plants has made it difficult for them to stay open. If nuclear is to play a role in the U.S. clean energy economy, costs must come down. Scientists at the U.S. Department of Energy's (DOE) Argonne National Laboratory are devising systems that could make nuclear energy more competitive using artificial intelligence. Nuclear power plants are expensive in part because they demand constant monitoring and maintenance to ensure consistent power flow and safety. Argonne is midway through a \$1 million, three-year project to explore how smart, computerized systems could change the economics.

Argonne scientists are building systems to streamline operations and maintenance at reactors

Operation and maintenance costs are quite relevant for nuclear units, which currently require large site crews and extensive upkeep. Autonomous operation can help to improve their profitability and also benefit the deployment of advanced reactor concepts

Read more: <https://indiasmartgrid.org/viewnews.php?id=6035>

BSES-Bidgely sign MOU for AI On Load Forecasting, Energy Management

Indian Discom BSES has signed an MoU with Bidgely, a US-based global leader in artificial intelligence (AI)-powered solutions, for accelerating its transition towards a greener and digitalised future. BSES Rajdhani Power Ltd (BRPL) and Bidgely will collaborate

in the development and implementation of scalable AI-based solutions to enhance operational efficiencies in several areas.

The partnership will help BSES to develop AI-based solutions for enhancing consumer engagement, reduction in AT & C losses, further optimisation of power purchase costs, and better planning of the distribution network. It will also help to develop tools for promotion of energy efficient appliances based on the energy consumption patterns of the consumers and disaggregation of consumer load at the appliance level.

Read more: <https://indiasmartgrid.org/viewnews.php?id=6034>

Oman's AI Shawamikh, Frontech Sign Pact To Use Blockchain In Sustainable Energy Management

AI Shawamikh Oil Services Company, one of the local community companies in the energy sector, signed a cooperation agreement with the leading technology company; Frontech, to develop a sustainable energy management

Blockchain technology contributes to finding smart solutions to develop performance, increase efficiency

system through the usage of blockchain technology. The pact signed by Dr Aflah bin Said Al Hadhrami, CEO of AI Shawamikh Oil Services and Dr Ammar bin Darwish Al Obaidani, CEO of Frontech looks into enhancing the work system and cooperation in developing sustainable energy solutions.

Blockchain or the digital blockchains are the new digital revolution that may go beyond the Internet revolution and has gained great momentum recently. The agreement between AI Shawamikh and Frontech comes to take advantage of one of the possibilities of the fourth industrial revolution to develop sustainable energy solutions and to meet the aspirations and objectives of Oman's vision 2040 in its renewable renaissance.

Read more: <https://indiasmartgrid.org/viewnews.php?id=6033>

China Exploring Blockchain For Energy Trading

Blockchain technology's immutable characteristic can provide transparent and reliable electricity metering and proof of transactions, as stated by Institute of Electrical and Electronics Engineers. According to the NEA, a state agency responsible for formulating energy policy under the National Development and Reform Commission (NDRC), the policy will explore the possibility for small and medium-sized power generation and storage facilities that service local neighborhoods to trade energy with state and national grids. Chinese software firm Insigma Hengtian Software said in July that the Yunnan province in the southwest of the country awarded it a contract to provide a blockchain-based electricity trading system.

The National Energy Administration (NEA) will explore blockchain-based power trading platforms to facilitate electricity trading between self-contained power generation units and the state and national grids, according to a policy document released on 26th August 2022

Read more: <https://indiasmartgrid.org/viewnews.php?id=6032>

IoT is Transforming Future Of Energy Management

The Internet of Things (IoT) has been a key component in helping smart devices operate, connect vehicles to the Internet, make cities, homes and commercial real estate buildings “smart” and more. Going forward, IoT could be looked to as a solution to address the forecasted energy consumption increase, as per BizTech Magazine.

The world’s energy consumption is expected to go up by 48 percent by 2040, according to the U.S. Energy Information Administration. If that is the case, the energy and utility sectors will have to adapt to and keep up with operational and technological efficiency. To date, businesses have used IoT to keep pace. “IoT convergence within operations is becoming more important,” John Villali, a research director at IDC Energy Insights, told BizTech Magazine. Villali noted that linking asset performance, distributed energy and workforce management systems with smart devices and artificial intelligence (AI) could change the future of the industry. “Utilities are realizing this and moving forward in that direction,” he said.

Read more: <https://indiasmartgrid.org/viewnews.php?id=6031>

Globalstar and Globalsat to Deploy IoT Solution for Monitoring of Renewable Energy Stations in Latin America

Globalstar, has partnered with Globalsat Group to deploy a jointly developed IoT solution powered by Globalstar’s satellite network designed to monitor renewable energy stations located in remote areas of Latin America. The initial deployment will include 23,000 devices throughout the region with an expectation of additional opportunities in the short term.

The energy stations, which are installed in remote areas, have historically presented cost implications surrounding access and, similarly, without notice of service shutdowns, have caused additional loss of time, revenue, and information. The new solution will allow clients to obtain daily data, including information on equipment status and energy consumption. Maintenance costs will also be drastically reduced with preventive scheduling and real-time response. The solution will also provide monitoring visibility as a means of theft prevention.

Read more: <https://indiasmartgrid.org/viewnews.php?id=6030>

SMART WATER AND SMART GAS

Gas Stoves Are Worse for Climate and Health Than Previously Thought

According to a new study from Stanford scientists, many stoves are constantly emitting gasses that can warm the planet and pose serious health risks when inhaled. The research, which appeared in the journal Environmental Science & Technology, found methane emissions from gas stoves across the United States are roughly equivalent to the carbon dioxide released by half a million gas-powered cars in a year. While leaky natural gas pipelines have been studied extensively, scientists know less about the climate and health impacts of gas-burning stoves. More than a third of Americans cook with gas, and some get additional exposure from space and water heaters. All of these natural gas-burning appliances can emit gasses that can trigger asthma, coughing, and potentially increase susceptibility to respiratory infections.

To gauge the impact of these emissions, researchers measured three key gasses from stoves in 53 homes across seven California counties. The team chose two gasses—methane and carbon dioxide—because of their contribution to climate change, and selected nitrogen oxides because of their known risk to human

health. The scientists set up plastic partitions between the kitchens and other rooms and used instruments that measure wavelengths of light to determine the concentration of certain gases.

To their surprise, they found that more than three-quarters of the methane emissions happened when both old and new gas stoves were turned off.

Read more: <https://indiasmartgrid.org/viewnews.php?id=6029>

Clean Ganga Mission Approves 13 Projects Related to Geo-Mapping, Sewerage Management, Wetland Conservation

National Mission for Clean Ganga (NMCG) approved 13 projects pertaining to geo-mapping in Uttarakhand, Uttar Pradesh and NCT of Delhi, sewerage management in Uttarakhand, Uttar Pradesh, Bihar and West Bengal, riverfront development works in Uttarakhand, wetland conservation, Arth Ganga and refurbishment of gates of Belia Circular Canal in Kolkata, was stated in a press release by the Ministry of Jal Shakti on Thursday.

The estimated cost of these projects is around Rs. 818 crores. For scientific geo-mapping of River Ganga and its tributaries, 3 projects were approved. These include ‘Fluvial Geomorphology mapping of Hindon River Basin’ by NEER. Hindon River is a second-level tributary of the Ganga River.

Read more: <https://indiasmartgrid.org/viewnews.php?id=6029>

Oil Ministry to Divert Gas from Industries after CNG, Piped Gas Prices Jump 70% in a Year

The Oil Ministry has ordered the diversion of Natural Gas from industries to the City Gas Distribution sector to cool CNG and piped cooking gas prices that have shot up by 70 per cent on the use of imported fuel. Less than (3) months after it ordered the use of costlier imported LNG to meet incremental demand for automobile fuel CNG and household kitchen gas PNG, the MoPNG Ministry on 10th August, 2022 reverted to an old policy of primarily supplying domestically produced gas for city gas operations.

Read More: <https://indiasmartgrid.org/viewnews.php?id=6028>

India Aims to have 15% Gas in its Energy Mix by 2030

India’s target to raise the share of gas in its energy mix to 15% by 2030 from around 6.4% now seems improbable, as demand will continue to outstrip domestic supply while inadequate evacuation infrastructure could prevent large-scale imports that would be required to realize the lofty goal. Far from going up, India’s net production of Natural Gas fell in the last decade to 33,131 million standard cubic metre (mmscm) in Financial Year 2022, compared with 39,753 mmscm in Financial Year 2013. Net production denotes gas available for consumption. The gross domestic production of Natural Gas in Financial Year 2022 was 34,024 mmscm, up from 28,672 mmscm in Financial Year 2021. ONGC is the leading producer of gas in the country contributing around 61% of the country’s production in Financial Year 2022.

Read More : <https://indiasmartgrid.org/viewnews.php?id=6027>

GAIL Sets 2040 Goal for Net Zero Carbon Emissions

GAIL (India) Ltd has set a 2040 target to achieve net zero carbon emission from its operations, Chairman Manoj Jain stated in the recent gas distributor’s annual shareholders’ meeting. India, one of the world’s biggest greenhouse gas emitters, is aiming to reach net zero emissions by 2070 and wants to raise the share of gas in the country’s energy mix to 15 percent by 2030 from the current 6.2 per cent. Globally oil and gas companies have set varying targets to reduce Scope 1 and 2 emissions, those linked to a company’s own operations, and Scope 3 which are produced when customers use their products.

Read More: <https://indiasmartgrid.org/viewnews.php?id=6026>

Smart Grid Projects in India – Tender Update

Ongoing Tenders

S. No	Utility	Tender Details	Submission Date	Source
1	West Bengal State Electricity Distribution Co. Ltd	Supply and Installation and Maintenance of Smart Meter with Communication System and Cloud Based Head End System for AMI Solution on TOTEX Model	14 October 2022	https://bit.ly/3dbglSf
2	Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Limited	Appointment of Advanced Metering Infrastructure Service Provider (AMISP) for Smart Metering on Design-Build Finance-Own-Operate-Transfer (DBFOOT) basis on Hybrid OPEX model	30 September 2022	https://bit.ly/3A27vxm
3	Department of Electrical Inspectorate, Kerala	10-point Energy meter test bench with 0.05 accuracy or better with DLMS facility for smart meter testing with software	30 September 2022	https://bit.ly/3DsiPGq
4	BSES Yamuna Power Limited, New Delhi	Design, supply and installation upto 2 million smart meters with cellular and RF technology along with RF solutions	26 September 2022	https://bit.ly/2ONH9WO
5	BSES Yamuna Power Limited, New Delhi	Engagement of Service Provider for Implementation and Operation for Advanced Metering Infrastructure (AMI) System	26 September 2022	https://bit.ly/2ONH9WO
6	BSES Rajdhani Power Limited, New Delhi	Design , Supply & Installation up to 3 million smart meters with cellular & RF technology along with RF solutions	26 September 2022	https://bit.ly/2w0lnrH
7	BSES Rajdhani Power Limited, New Delhi	Engagement of Service Provider for Implementation and Operation of Advance Metering Infrastructure (AMI) System	26 September 2022	https://bit.ly/2w0lnrH

Announcing India Smart Utility Week 2023



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01 - 04 March 2023

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01 March 2023 Wednesday Conference & Exhibition	02 March 2023 Thursday Conference & Exhibition	03 March 2023 Friday Conference & Exhibition	04 March 2023 Saturday Tutorials & Technical Tours
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For Partnership, Exhibition and Participation queries, please write to us at isuw@isuw.in

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6th Annual Conference of
Power Distribution Utilities
for Collaborative Growth
17 - 18 November 2022
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DUM 2022 CONFERENCE SESSIONS

DAY – 1: 17 NOVEMBER 2022 (THURSDAY)

- Session – 1: Energy Transition Challenges to Discoms
- Session - 2: AMI Rollout Plans and Challenges for Discoms
- Session - 3: New Electricity Act Envisaging Separation of Carriage and Content and Retail Competition
- Special Plenary Session (With Regulators and Policy Makers): Distribution Sector Reforms – Recent Experiences and Challenges

DAY – 2: 18 NOVEMBER 2022 (FRIDAY)

- Yoga Session
- Session - 4: Model Asset Management Guidelines for Indian Discoms in partnership with GIZ
- Session - 5: Disaster Management Plan and Readiness of Discoms
- Session - 6: Customer Expectations, Supply Reliability and Service Delivery Challenges
- Session - 7: New and Emerging Technologies for Electric Utilities