47th CIGRE session from 26 - 31 August 2018 in Paris, France

47th CIGRE Session, the bi-annual technical conclave was held in Paris from 26 – 31 August 2018. CIGRE (International Council on Large Electric Systems) is a permanent, non-governmental and non-profit international association founded in 1921.

Mr Rob Stephen, President of CIGRE opened the 47th Session by welcoming the participants and presenting an update on CIGRE activities since the 46th Session in August 2016. The keynote speaker for the Opening Ceremony was Mrs Audrey Zibelman, Managing Director and CEO, Australian Energy Market Operator. The 5-day event had keynote sessions, poster sessions, discussion forums and 578 technical papers, 300+ exhibitors and more than 3700 registered senior power sector professionals from around the world.

CIGRE India in collaboration with CBIP and ISGF lead a strong delegation of over 150 professionals comprising of Senior Officials from Ministries, Utilities, Regulatory Commissions, Academia, Industry and Think Tanks for the CIGRE Session 2018 in Paris. A Networking Reception was organised by CIGRE India, ISGF and CBIP in partnership with ABB, Secure Meters, CESC Kolkata, CTR Mfg Ind Ltd, Raychem RPG Pvt Ltd, Taurus Powertronics Pvt Ltd, Scope T&M Ltd, Shanghai Shemar Power Engineering Co. Ltd and KEI Industries Limited on 29th August 2018 at the Hyatt Regency Paris Etoile which was attended by over 250 participants from around the world.
Three days Smart Grid Foundation Course by ISGF

India Smart Grid Forum (ISGF) organised 3 days Smart Grid Foundation Course from 07 – 09 August 2018 in New Delhi for utility engineers, industry executives and fresh graduates to understand the nuances of smart grid technologies, architectures, standards, business models and implementation experiences of past projects. The course was supported by Skill Council for Green Jobs and it was inaugurated by AK Verma – Joint Secretary, Ministry of Power; Pankaj Batra, Additional Chairman, CEA; VK Kanjlia, Secretary, CBIP; Praveen Saxena, CEO, Skill Council for Green Jobs; AK Mishra, Director, NSGM; Reji Kumar Pillai, President, ISGF. This year the three-day long course received overwhelming response from both industry and Utility participants and it was attended by 35 participants. The certificates to the participants were awarded by Vishal Kapoor, Director, Ministry of Power.

Subjects covered during the Smart Grid Foundation are:

| Introduction to Smart Grids | Smart Consumers and Behavioral Models of Smart Grid Consumers |
| Communications and AMI | VER & DER – Integration Challenges, DERMS and other Flexibility Solutions |
| T&D Automation | Energy Storage, Demand Response other emerging technologies |
| Digital Architecture & Cyber Security for Smart Grids | Advanced Analytics |
| Modal Smart Grid Regulations | Blockchain for Energy Sector |
| Time of Use (ToU) Tariff | Smart Grid as Anchor Infrastructure for Smart Cities; Smart Buildings and Smart Microgrids |
| Enterprise IT Systems | Renewable Energy Integration |
| Electric Vehicles and Vehicle Grid Integration |

Appointments and Transfers

- Justice Manjula Chellur has been appointed as Chairperson of Appellate Tribunal for Electricity in India
- PK Mukhotadayay has been appointed as Chairman of Damodar Valley Corporation
- Ms Sikha has been appointed as Managing Director of Bangalore Electricity Supply Company Ltd
- Selva Kumar has been appointed as Chairman of Gulbarga Electricity Supply Co. Ltd
- R Raga Priya has been appointed as Managing Director of Gulbarga Electricity Supply Co. Ltd
- HB Gopal Krishna has been appointed as Managing Director of Chamudeshwari Electricity Supply Company Ltd
- NS Pillai has been appointed as Chairman of Kerala State Electricity Board
- RG Gupta has been appointed as Chairman of Jaipur Vidyut Vitrans Nigam Ltd
- Ashutosh Niranjhan has been appointed as Managing Director of Paschimanchal Vidyut Vitrans Nigam Ltd, Uttar Pradesh
- Govind Raju (IAS) has been appointed as Managing Director of Purvanchal Vidyut Vitrans Nigam Ltd, Uttar Pradesh

ISGF Welcomes New Members

- Himachal Pradesh State Electricity Board has joined as Utility Member
- GAIL (India) Limited has joined as Utility Member
ISGF Member’s Column: Federal Synergies (India) Private Limited

Federal Synergies (India) Private Limited, an ISGF Member since June 2018. In the Year 1998, municipal and power sector faced tremendous challenges in the area of modernization and were struggling with availability of local engineering solutions. There was need for an indigenous engineering services solution provider who could cater to customer requirements while understanding Indian conditions. Shanta Synergies Group was envisioned by Dr. Ishwari Prasad Poddar to cater to municipal and power sector clients. The group at present has diversified into the Enterprise Resource Planning Management and Infrastructure sector.

Federal Synergies (India) Private Limited (FSIPL) are associated with multiple renowned organizations located in India and abroad as an authorized channel partner and are related to a working arrangement with many of these organizations. We assist these organizations in locating the market segment for their product and services, with designing and effectively implementing the marketing strategy for the products and services. Along with its own engineering strength, we also assist these organizations in system engineering, product installation and commissioning, testing of products as well as providing after sales support for the products and services marketed by them.

Federal Synergies (India) Private Limited have successfully implemented a Phase Deployment of 65,000 Smart Energy Meters in Kota, Rajasthan for Kota Electricity Distribution Limited (A Subsidiary of CESC Ltd.) in the recent past. Their hands-on experience on complete AMI Deployment, Canopy and RF Mapping, coupled with Installation and Project Management Services make them a strong partner to have for Smart Metering Deployment.

FSIPL work closely with their customers for Sourcing Equipment’s and Materials:

A. Emergency Restoration System - FSIPL sourced critical ERS Towers to provide for maintenance and disaster response solution to Transmission Towers. An ERS Tower is a modular tower which can be easily transported and assembled within 24-48 Hours for resolving issues on Transmission Lines, hence avoiding critical revenue of Millions to the Utility.

B. Sourcing of LT Cables on Vendor Managed Inventory Basis - FSIPL work with the Utility on a forecasting-based supply system which ensures that the Utility has optimum stock. This has saved the Utility tremendous Inventory carrying costs, and allows for continuous rotation of stock which does not allow for old inventory buildup.

C. Supply of Co-Axial Anti Theft Jointing Kits of 3M – FSIPL along with their principal, 3M India undertook development of specialized anti-theft cables and jointing kits to reduce losses in theft prone areas, both Overhead and Underground solutions being supplied. FSIPL also supplies complete range of 3M Jointing Kits to the Utility.

D. DWC Pipes- FSIPL identified usage of IS 16098: Pt 2 DWC HDPE Pipes to be used for underground cable protection rather than Solid Wall HDPE Pipes which bought in savings of more than 45% to the Utility.

Value Added Engineering Solutions: LT Fault Analysis Centre – FSIPL have setup a LT Fault Analysis Centre since February 2017 in South West Suburban District of Kolkata where they analyze all failed joints, supervise maximum possible jointing work of 3rd Party Contractors, train the workforce as required and suggest improvements for better stability in the area.

Contact Details: Prayush Poddar, Director, Federal Synergies (India) Private Limited, Email: prayush.poddar@federalsynergies.com

EU-India Smart Grid Workshop, 19 – 22 November 2018, Florence and Rome, Italy

ISGF announces 6th EU – India Smart Grid Workshop in Florence, Italy scheduled on 19 -22 November 2018. The Workshop will be hosted by Florence School of Regulations and will be followed by site visits to ENEL’s Facilities in Rome on 22nd November 2018. The importance of EU-India cooperation on Smart Grid has been underlined in the Joint Declaration on a Clean Energy and Climate Partnership adopted by EU and India on the occasion of the visit by India’s Prime Minister Modi to the European Leaders in Brussels on 30 March 2016.

The Florence Workshop will involve Indian and European Policy Makers, Network Operators, Regulators and Technology Providers in interactions on the following themes:

- Regulatory Frameworks enabling RE Integration
- European and Indian demonstration projects on Energy Storage to promote the integration of Renewable Energy and Electric Vehicle
- Evolving role of Distribution System Operators in the context of Smart Grids
- Upscaling and transferring promising Smart Grid demonstrations in Indian and European contexts

To join the delegation from India, please contact Ms. Reena Suri at India Smart Grid Forum (reena.suri@indiasmartgrid.org)
INDIA

Government of India Plans New Policy to Promote Electric Vehicles

Government of India is preparing a new policy for promotion of electric vehicles, which will be rolled out initially on a smaller scale to ensure smoother transition and better cooperation from the automobile sector. The government will first begin creating favourable ecosystems in nine polluted cities with a population of over four million, and gradually move to cities with one million-plus populations. Read More: https://bit.ly/2wf3x3O

Jharkhand to have a New Policy for Rooftop Solar

The Jharkhand Renewable Energy Development Authority (JREDA) said it has prepared a framework for the state rooftop solar power policy 2018 with an objective to produce 500-megawatt (MW) power through grid-connected rooftop solar plants by 2022. The new policy will facilitate rooftop solar power projects in the state’s urban settlements. Read More: https://bit.ly/2MraGJf

Government of India to Approve Rs 3,500 crore for EV Promotion

The government is set to approve a subsidy of around Rs 3,500 crore for promoting electric vehicles over the next five years as part of the FAME 2 Plan, while limiting support only to government-run buses and denying benefit currently available to private vehicles, including hybrids. The plan leaves out private cars, cab aggregators, two-wheelers and even hybrid vehicles from the government’s financial incentive package that is aimed at supporting green mobility initiatives. Read More: https://bit.ly/2wfzm16

Colour Coding of Vehicle Number for Electric Vehicles

All battery-operated electric vehicles shall now exhibit their registration mark in yellow colour on green background for transport vehicles and for all other cases, in white colour on green background. The purpose behind distinctive number plates is their easy identification for preferential treatment in parking, free entry in congested zones besides other proposed benefits like concessional toll etc. This was first proposed by ISGF in a White Paper in 2015. Read More: https://bit.ly/2BryLdL

Mission to Restore Power Supply in Flood-hit Kerala

The Kerala State Electricity Board (KSEB) has launched ‘Mission Reconnect’ to restore power supply to households affected by floods. KSEB will be providing a single-point connection free of cost and without a meter as an interim measure to restore power supplies to those affected and will also have provision for one bulb, one plug point and one insulation system under the Mission Reconnect. Nearly 25 lakh residents were left without electricity as 10,000 11kV distribution transformers were shut down during the floods. Of these, 4,500 transformers have been put back and the rest are being restored. Read More: https://bit.ly/2wflK4J

IGL gets City Gas Licence for Meerut, Muzaffarnagar

Indraprastha Gas Ltd an ISGF member said that it has bagged a licence to retail CNG to automobiles and piped natural gas for cooking to households in three districts of Uttar Pradesh. IGL has received a letter of intent from Petroleum and Natural Gas Regulatory Board (PNGRB) for grant of authorization for development of CGD network in the Geographical Area of Meerut (except areas already authorized), Muzaffarnagar and Shaml districts. Read More: https://bit.ly/2MBZ2tor

Timeline for Implementation of Solar Parks Extended

The Ministry of New and Renewable Energy (MNRE) has extended the timeline for implementation of solar parks and Ultra Mega Solar Power Projects with total capacity of 40 GW by two years, from the initial deadline of FY2020 to FY2022. This new order will provide more time to all parties in the development of solar parks and ultra-mega parks, including agencies responsible for tendering the projects such as SECI and NTPC and private developers facing challenges with land acquisition and securing power evacuation from the plants and the extension will not have any financial implication. Read More: https://bit.ly/2uqYRHr

PNG License Auction for 86 Areas

A PNG license auction was held to retail natural gas in 86 geographical areas comprising 174 districts and 400 bids were received for the same. It is envisaged this initiative would help create robust infrastructure by bringing in investment of about 70,000 crore, generating employment and will also play a role in achieving the objective of shifting towards a gas-based economy, with natural gas as the next-generation, cheaper and environment-friendly fossil fuel. Read More: https://bit.ly/2LI4XqD

INTERNATIONAL

Dominion Energy Declares Grid Transformation Program

Dominion Energy Virginia has declared its first set of plans for a smarter, stronger and greener energy grid filed under the Grid Transformation & Security Act (GTSA). The landmark legislation, signed by Gov. Ralph Northam, became effective July 1 and provides a roadmap for Virginia’s energy future. Dominion Energy is committing to having 3,000 MW of new solar, wind—enough to power 750,000 homes, under development or in operation by the beginning of 2022. Read More: https://bit.ly/2Mtw3UE

California Plans Stringent Rules on Vehicle Emissions

The California Air Resources Board (CARB) proposed continuation of the previous rules mandating rising fuel efficiency requirements annually through 2025. The government has proposed freezing federal vehicle emissions requirements at 2020 levels through h 2026. Read More: https://bit.ly/2PqGEBw

CPUC Issues Final Version of Customer Choice Paper

The California Public Utilities Commission (CPUC) issued the final version of its Customer Choice Paper. The paper addresses the changing electric market scenario in California and resulting new challenges that are confronting the state’s energy future and reliability. The purpose is to raise awareness of the challenges and opportunities in California’s rapidly changing electricity market, engage stakeholders, and advance a public dialogue to ensure continued reliable, clean, and affordable electricity for customers and equitable treatment for all market participants. Read More: https://bit.ly/2wc5uyy

NYISO Announces Distributed Energy Resource Pilot Projects

The New York Independent System Operator, Inc. (NYISO) recently (7/26) announced the selection of three pilot projects

www.indiasmartgrid.org
to demonstrate the capabilities of Distributed Energy Resources (DERs) and options for their integration into its wholesale markets. These pilot projects support the NYISO’s DER Roadmap, which establishes a clear path for integrating DERs and, in so doing, will help the state of New York achieve its goals for Reforming the Energy Vision (REV). Read More: https://bit.ly/2o9fpm9

**New York Unveils New Toolkit to Drive Solar on Brownfields**

The New York State Energy Research and Development Authority (NYSERDA) released new guidance for municipalities developing solar projects on landsfills or brownfields, to maximize expansion on underutilized land and the state’s efforts to increase renewable generation. The leasing instructions and templates in the Municipal Solar Procurement Toolkit reflect a lower threshold of environmental review for projects on brownfields and landsfills due to recent updates from the Department of Environmental Conservation (DEC). Read More: https://bit.ly/2Nft11v

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**GRID MODERNIZATION AND SMART METERING**

**US, India Agreement to Modernise Grid in Andhra**

Memorandum of Understanding (MoU) was signed between US Trade and Development Agency (USTDA) and private sector firms IL&FS Energy Development Company (IEDCL), on the side-lines of the Indo-Pacific Business Forum hosted by the US Chamber of Commerce, where US Cabinet secretaries and senior leaders from government and business discussed potential areas of collaboration.

IEDCL has selected Black & Veatch, a Kansas-based engineering firm, to carry out the technical assistance for the project that will advance pre-implementation and pre-construction activities for the plant, which is expected to lead to a 1,040MW wind power installation. This project is a follow-on to previous USTDA support that assessed the technical, financial and commercial viability of wind, solar, and energy storage hybrid power projects in Gujarat and Andhra Pradesh. Read More: https://www.smart-energy.com/industry-sectors/business-finance-regulation/us-india-agreement-modernise-grid-andhra/

**Germany Confirms Action Plan to Speed up Grid Expansion**

German economy and energy minister Peter Altmaier have presented a Power Grid action plan to speed up the current pace of grid expansion in the country. The plan aims to achieve greater control of the grid through predictive measures and notifications when reinforcement measures are required, as well as to simplify planning procedures in Germany.

According to Altmaier: “The power grids are the cardiovascular system of our power supply. This must work reliably from the wind turbines in the North Sea to the charging station in Bavaria”. Germany’s electricity sector has undergone fundamental changes over the last decade, a result of the Energiewend transformation mandate. To facilitate this expansion, two major new power lines Suedlink and Suedostlink are expected to be completed by 2025.


**1.8 Million Smart Meters to Boost India’s Power Sector Reform**

Memorandum of Understanding (MoU) was signed between Energy Efficiency Services Ltd (EESL), North Bihar Power Distribution (NBPDCL) and South Bihar Power Distribution Company (SBPDCL) to deploy 1.8 million smart electricity meters in 130 towns and adjacent rural areas. The MoU requires phased installation of the meters over the next 1.5 years.

EESL will finance, build, own, operate, and transfer the smart metering (AMI) solution in the project area at the end of the agreement tenure, and will monetise its investment on monthly annuity basis. Through its Smart Meter National Program (SMNP), EESL aims to replace 250 million conventional meters in India with smart meters. The idea is to improve billing efficiencies across the nation, enabling alignment with the loss trajectory agreed by the DISCOMs under the UDAY scheme. Read More: https://www.smart-energy.com/industry-sectors/smart-meters/1-8million-smart-meters-boost-indias-power-reform/

**ELECTRIC VEHICLES AND ENERGY STORAGE**

**New Standard IS 17017 (Part 1): 2018 on “Electrical Vehicle Conductive Charging System” (Part 1): General Requirements has been Released by BIS**

BIS has released a new standard IS 17017 (Part 1): 2018 on Electrical Vehicle Conductive Charging System (Part 1): General Requirements. This part of IS 17017 (Part 1): 2018 applies to Electric road Vehicle (EV) supply equipment for charging electric road vehicles, with a rated supply up to 1000 V a.c., or up to 1500 V d.c. and a rated output voltage up to 1000V a.c. or up to 1500 V d.c. Electric road Vehicles (EV) covers all road vehicles, including plug-in hybrid road vehicles (PHEV) that derive all or part of their energy from on-board rechargeable energy storage system (RESS).

The aspect covered in this standard includes:

- The characteristic and operating condition of the EV supply equipment.
- The specification of the connection between the EV supply equipment and the EV.
- The requirement for electrical safety for the EV supply equipment.

Source: Bureau of Indian Standards

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**US Senate Planned Examination of Energy Efficiency of Blockchain**

The U.S. Senate is set to take another look at blockchain technology. The Committee on Energy and Natural Resources had planned to host a hearing on “Energy Efficiency of Blockchain and Similar Technologies” on August 21, in an effort to better understand how blockchain technology might impact electricity prices and what benefits it can provide. The purpose of the hearing is to consider the energy efficiency of blockchain and similar technologies and the cybersecurity possibilities of such technologies for energy industry applications. Specifically, the event was organised to ask the question, “should we expect electricity prices to increase from rising electricity demand in blockchain applications?” The effort also aimed to evaluate whether blockchain and similar technologies might soon bring improvements in the online security of energy supply computer systems. Read More: http://www.indiasmartgrid.org/viewnewsphp?id=4621
Exicom Wins NTPC Tender for Electric Charging Infrastructure Development

On 15th August, 2018, Exicom won the NTPC Tender for development of charging infrastructure for Electric Vehicles (EV) at Jabalpur, MP. The charging infrastructure shall constitute of 120 kW and 50 kW DC chargers of CCS standard for electric buses. Read More: https://bit.ly/2wdSNIU

China Announces Pilot EV Battery Recycling Schemes

China will launch a pilot electric vehicle battery recycling scheme in 17 cities and regions, with Beijing keen to head off an emerging pollution threat. The Ministry of Industry and Information Technology said in a notice published on its website that the cities and regions would encourage car producers to establish recycling service outlets and cooperate with battery producers, used car dealers and scrap merchants to build regional recycling systems. Read More: https://reut.rs/2NMfRem6

UK Energy Regulator Proposes Reforms to Support Electric Vehicles

Britain’s energy market regulator Ofgem has proposed energy system reforms to help support the expected rise in electric vehicles in the coming decades. The proposed reforms include incentives to customers to charge their electric vehicles when there is less demand across the system. The reforms will free up existing grid capacity to allow new generators, including businesses or other organisations which want to generate their own power, to get connected more quickly. The reforms are to be put in place between 2022 and 2023. Read More: https://bit.ly/2vTcikq

RENEWABLE ENERGY AND MICROGRIDS

Development of Mini-Grids in Sub-Saharan Africa by Odyssey Energy Solutions

Mini-grids are a low cost and efficient option for bringing electricity to 70 percent of the world’s one billion people residing without access to basic electric power, where most live in rural Sub-Saharan Africa and Asia. Streamlined development of Mini-Grids (the term used in Africa for microgrids) via software tools that link project developers, technology suppliers and investors in a single, standardized platform. According to the company, platform users currently comprise a network of more than 100 developers, investors, vendors, and government institutions, with recent month-on-month user growth of 30-40 percent.

The projects in Odyssey’s project pipeline represent about 275,000 mini-grid connections with a generation capacity of about 150 MW of installed solar PV. The 550 projects come from 21 countries, including Cape Verde, Ethiopia, Haiti, India, Kenya, Nigeria, Philippines and South Africa. Project ticket sizes, aka project costs, range from $40,000 to $3 million. Read more: https://microgridknowledge.com/minigrid-software-africa/

CYBER SECURITY

DOE (Department of Energy), U.S. Cyber Security Report Reveals 7 ‘Gaps’ in Power Sector Defence Capabilities

The U.S. Department of Energy made public on August 2017 report that concluded there are more than a half dozen “capability gaps” in the power sector’s ability to respond to a cyberattack on the electric grid.

Along with the assessment, DOE also recently created the Office of Cybersecurity, Energy Security, and Emergency Response (CESER), to boost the agency’s role in responding to grid threats. The “capability gaps” identified in the report include:

- cyber situational awareness and incident Impact analysis;
- rules and responsibilities under cyber response frameworks;
- cybersecurity integration into state energy assurance planning;
- electric cybersecurity workforce and expertise;
- supply chain and trusted partners;
- public-private cybersecurity information sharing;
- and resources for national cybersecurity preparedness.

Among the recommendations, DOE suggested that in coordination with the U.S. Department of Homeland Security, the agency will work to support research into and development of system architectures and components “which help minimize cyberattack surfaces, prioritize key elements of electricity generation and delivery to isolate from internal and public networks, and enable system recovery.”

The agency also wants to develop a national laboratory testing program to consider grid components, assess cybersecurity supply chain posture and examine cyber malware impacts in a simulated environment. Read More: https://www.utilitydive.com/news/doe-cybersecurity-report-reveals-7-gaps-in-power-sector-defense-capabilit/524706/

US Tightens Cyber Security Regulation for Electric Utilities

US electric companies will be subject to tighter rules when it comes to reporting cybersecurity incidents, as critical infrastructure continues to be targeted by criminals. The Federal Energy Regulatory Commission (FERC) said it will be introducing updated reporting standards that will require utilities firms to report any attempt by cybercriminals to attack their systems.

The FERC hopes that by logging all attempted cyber-attacks, it will make it harder for malicious actors to harm electrical systems across the country. This latest move comes after the US passed a bill to greater protect the nation against cyber-attacks within critical infrastructure. The DHS Industrial Control Systems Capabilities Enhancement Act was approved by Homeland Security earlier this month. It was introduced in May and includes added measures to reduce the risk of an attack on US systems. The bill requires the National Cybersecurity and Communications Integration Center (NCCIC) to “identify threats to industrial control systems” and address vulnerabilities in automated technology used in infrastructure. Read More: https://portswigger.net/daily-swig/us-tightens-cybersecurity-regulation-for-electric-utilities

DISRUPTIVE TECHNOLOGIES

Blockchain Enables Australia’s Peer-to-Peer Power Trading Kick-off

Cheap solar electricity will be traded between neighbouring residents in apartment blocks in Western Australia, enabling peer-to-peer (P2P) trading of electricity in a project supported by the Australian Renewable Energy Agency (ARENA). Using Power
Ledger, a blockchain-based technology developed by a local firm will be used to provide a so-called ‘transactive’ layer to the management of the solar-plus-storage installation. Residents will be able to freely sell their power to one another, allowing those with surplus production, for example, to sell power to their neighbours as required. Read More: http://www.indiasmartgrid.org/viewnews.php?id=4594

Energy Firm EDP Using Blockchain for Distributed Electricity Generation

Energy company Energias de Portugal (EDP) is using blockchain technology for the measurement and recording of energy consumption and distributed generation coming from its consumers. EDP is among the major operators of Europe’s electricity sector. The blockchain solution, which was developed in partnership with Austrian blockchain startup Riddle&Code, facilitates the process of managing the energy produced by the solar plants and consumed by the customers, the so-called ‘prosumers’, who consume and produce energy at the same time. The solution uses a non-removable cryptographic tag that is attached to domestic energy meters to measure the co-consumption of each user. It facilitates transactions and calculations for charging and taxing. Read More: http://www.indiasmartgrid.org/viewnews.php?id=4584

IoT Solutions for Energy Industry Market Size & Share Poised for Growth By 2024


SMART CITIES

The Intelligent Transportation is the Most Important Pillar of a Smart City

As technology has developed to create intelligent transportation systems, this critical infrastructure should be included in any smart city initiative. Smart city initiatives, such as intelligent transportation, are developing rapidly around the world and for good reason. Smart cities not only improve public safety and business success as well. Intelligent transportation must be a first step in the smart city movement. This could include monitoring traffic patterns, highly trafficked pedestrian areas, metro stations, coordinating train times and much more. Intelligent transportation can improve overall situational awareness while enhancing interoperability and the ability to share information quickly. Some large cities have already taken steps to enhance their transportation systems intelligence as part of their smart city initiative. Read More: https://www.information-age.com/intelligent-transportation-smart-cities-123473979/

Enhancing Smart City Technology Using Internet of Things (IoT)

The key technology behind the success of smart city initiatives, whether it’s improving pollution levels or traffic conditions, is the IoT. The IoT is a network of physical connected devices, like vehicles or home appliances that enable these ‘things’ to connect and exchange data. This in turn, is creating never before seen opportunities to converge the physical and the digital via data analytics to improve efficiency (both in public and private sectors), drive economic benefits and improve livelihoods. A number of cities around the world are making the commitment to smart cities and to the IoT. For example, in the US, 66% of the cities are investing in smart city technologies, like smart meters, intelligent traffic signals and RFID sensors in paved areas. Read More: https://www.information-age.com/smart-city-technology-123473905/

Delhi Gets Free Wi-Fi, Fast Broadband Under ‘Smart City’ Project

The National Capital Region will now enjoy free Wi-Fi and high speed broad band as a slew of Smart City projects. The New Delhi Municipal Corporation (NDMC) by successfully launching the smart city initiative has set an example before other aspiring smart cities in the country to follow. The other initiatives of the Smart City projects include Smart poles, Solar tree, Ideation center, LED interactive screens, two hi tech nurseries, four mechanical road sweepers, two litter packing machines and 10 auto tippers. The Red light and over speeding violation mechanism recorded by the Smart Poles, along with e-FIRs and female distress complaint should be recorded by the Digital Display panels in these smart infrastructures. Read More: https://economictimes.indiatimes.com/tech/internet/delhi-gets-free-wi-fi-fast-broadband-under-smart-city-project/articleshow/65392180.cms

Smart City Projects to Drive Growth in India, says Dell EMC Experts

The customers in India are increasingly focusing on business outcomes and looking forward to a convergence of cloud and on premise. This has resulted in a higher use of IoT and AI to improve services. Dell EMC expects smart city projects to drive significant growth through activities in Internet of Things in India. IoT a part of the larger engineering and R&D services segment is the enabler smart citizen services. Read More: https://tech.economictimes.indiatimes.com/news/corporate/dell-emc-expects-smart-city-projects-to-drive-growth-in-india/65362300

SMART WATER AND SMART GAS

Indian Oil Corp will Invest Rs 20,000 Crore in City Gas Projects in 5-8 years

Indian Oil Corp, the nation’s largest oil company, plans to invest Rs 20,000 crore in city gas distribution projects in next 5-8 years as it bets big on gas business to complement its traditional oil refining and marketing business. The firm, which owns a third of India’s oil refining capacity and has 44 per cent market share of fuel business, sees compressed natural gas (CNG) replacing a some of the petrol and diesel consumed in vehicles today and LPG getting replaced by piped cooking gas in households. It wants to be in these businesses to maintain its market leadership position. IOC, which among all PSUs bid most aggressively in the latest city gas distribution (CGD) licences, is hoping to net licences to retail CNG to automobiles and piped natural gas to households and industries in about 20 cities. Read More: http://www.indiasmartgrid.org/viewnews.php?id=4609
The 10th Technical Meeting of Forum of Regulators for Eastern & North Eastern States (FORENS) on 3rd August, 2018 at Kolkata

The 10th Technical Meeting of Forum of Regulators for Eastern & North Eastern States (FORENS) was held on 3rd of August, 2018 at Kolkata, West Bengal. The objective of the meeting was to share the initiatives undertaken by the utilities like CESC, WBSEDCL, IPCL in distribution system upgradation, smart metering, loss reduction, distribution franchisee etc. and also to learn from various actions suggested by regulatory commissions, think tanks, private organizations across India to improve the business as well as operational processes of the utilities.

As a part of the meeting, Mr. Reji Kumar Pillai, President, India Smart Grid Forum was invited to present on distribution system upgradation in steps up to implementation of Smart Grid including modern techniques, where Mr. Pillai had presented various action points like One Billing System, leveraging of R-APDRP data, introduction of Time of use tariff (ToU), improvement in HT:LT ratio, Service Model approach for New Technology adoption by utilities etc.

In addition, Delhi Electricity Regulatory Commission (DERC), KPMG, Sterlite Power also shared their experiences on improvement in power quality, enhancing consumer experience, capacity augmentation in transmission and distribution system, business process improvement through ERP implementation in West Bengal etc.

Call for Technical Papers - ISUW 2019


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The RE-Invest series of Investors’ Meet & Expo hosted by the Ministry of New and Renewable Energy (MNRE), Government of India, showcases India’s renewable energy potential and the Government’s efforts to scale up capacity to meet the national energy requirement in a socially, economically and ecologically sustainable manner. The 2nd Global RE-Invest India-ISA Partnership Renewable Energy Investors Meet & Expo is set to be held from 3-5 October, 2018 at the India Expo Mart, Greater Noida. For more details please visit the website - https://re-invest.in/
### Smart Grid Updates: Pilot Projects in India

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Project Name and Location</th>
<th>Name of Consultant</th>
<th>Key Functionalities</th>
<th>Key Vendors</th>
<th>Customers (Nos.)</th>
<th>Project Completion Date</th>
<th>Latest Progress</th>
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<tbody>
<tr>
<td>1</td>
<td>APDCL (Paltan Bazaar, Narengi, Ulubari - Assam)</td>
<td>Medhaj Techno Concept Pvt Ltd</td>
<td>AMI-R, AMI-I, PLM, OMS, PQM, DG</td>
<td>M/s Fluentgrid Ltd M/s Sinhal Udyog</td>
<td>15083 (15938)*</td>
<td>2018</td>
<td>13691 smart meters has been installed. Installation of Control Centre hardware equipment is completed. A total of 191 DCUs installed in Narengi, Paltan Bazar and Ulubari areas of Aug/18. 8500 meters communicating to Control Center. Data centre setup has been complete and commissioned. FAT for software modules has been completed.</td>
</tr>
<tr>
<td>2</td>
<td>PSPCL (SAS Nagar, Punjab)</td>
<td>POWERGRID</td>
<td>AMI-R, AMI-I, PLM</td>
<td></td>
<td>2,734</td>
<td></td>
<td>MDM development is in progress by M/s Analogics Tech. Bids are under evaluation for Smart Meter Tender.</td>
</tr>
<tr>
<td>3</td>
<td>TSSPDCL (Jeedimetla Industrial Area, Telangana)</td>
<td>CPRI</td>
<td>AMI-R, AMI-I, PLM, OMS, PQ</td>
<td>M/s. ECIL</td>
<td>11,904</td>
<td>2018</td>
<td>The agreement period is extended up to September'2018, as permitted by the MoP. 5000 Nos. Single Phase Smart Meters are installed. Erection of 51 Nos. RMUs against 62 Nos. (Automation components) are completed and balance yet to be erected. Erection of 59Nos. Autoreclosers against 77Nos. are completed. Erection of 10 Nos. Sectionalizers against 89Nos. are completed. Dispatch instructions are issued for supply of SGCC (Smart Grid Control Centre) hardware equipments and commissioning of SGCC is under progress.</td>
</tr>
<tr>
<td>4</td>
<td>TSECL (Agartala - Tripura)</td>
<td>POWERGRID</td>
<td>AMI-R, AMI-I, PLM</td>
<td>M/s Wipro M/s JnJ Powercom</td>
<td>42,676</td>
<td>2018</td>
<td>Total 30839 meters are installed and communicating with server. 234 DCUs have been installed and commissioned successfully. Rooftop Solar metering &amp; billing is being integrated with AMI system. Billing of one RMU and 6,700 consumers done with smart meter data. Control centre hardware and software installed. Acceptance testing of applications completed. Integration of remaining modules is completed. Expected date of completion is September 2018*</td>
</tr>
<tr>
<td>5</td>
<td>WBSEDCL (Siliguri, Darjeeling, West Bengal)</td>
<td>POWERGRID</td>
<td>AMI-R, AMI-I, PLM</td>
<td>M/s Chemtrols M/s CMS Computers Limited</td>
<td>5,275</td>
<td>Yet to be decided</td>
<td>4800 smart meters installed and 50 DCU installed at site. 50 DCU yet to be installed. Type test for smart meters have been completed. Material for Control centre setup has been received and installed at the site. 700 smart meters has been reporting of Control centre i.e. MDAS.</td>
</tr>
<tr>
<td>6</td>
<td>PED (Puducherry)</td>
<td>POWERGRID</td>
<td>AMI-R, AMI-I</td>
<td>M/s Dongfang</td>
<td>34,000</td>
<td>2018</td>
<td>20500 smart meters has been installed. 92 DCU installed. Control centre is ready for installation of control centre equipment.</td>
</tr>
<tr>
<td>7</td>
<td>UGVCL (Sabarmati, Gujarat)</td>
<td>POWERGRID</td>
<td>AMI-R, AMI-I, OMS, PLM, PQ</td>
<td>M/s Genus Power M/s Cyen Connode M/s Fluentgrid Ltd</td>
<td>39,422</td>
<td>June 2018</td>
<td>20500 nos 1 phase and 640 nos 3 phase smart meters installed at Naroda site. Target to complete installation of all smart meters by 30-Sep-2018. 130 RF Gateways (DCUs) are installed at site. 55 DCUs are installed at site. Data Center equipment procurement is completed. Control Centre Hardware has been completed. Draft application and MDMS-HES Integration with data migration is under development.</td>
</tr>
</tbody>
</table>
## Smart Grid Projects Completed in India

<table>
<thead>
<tr>
<th>No.</th>
<th>Utility</th>
<th>Tender Details</th>
<th>Submission Dates</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>UHBVN (Panipat - Haryana)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>HPSEB (Kala Amb Industrial Area - Himachal Pradesh)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>CESC (Mysore - Karnataka)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>IIT Kanpur - Smart City Pilot (Kanpur, Uttar Pradesh)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Smart Grid Projects under NSGM in India

<table>
<thead>
<tr>
<th>No.</th>
<th>Utility</th>
<th>POWERGRID</th>
<th>AMI, DT monitoring, Substation Automation, Rooftop Solar PV, IT infrastructure</th>
<th>N.A.</th>
<th>29,433</th>
<th>Yet to be decided</th>
<th>Details</th>
</tr>
</thead>
</table>
| 12  | CED (Chandigarh)             | POWERGRID                                                                 | AMI, DT monitoring, Substation Automation, Rooftop Solar PV, IT infrastructure | N.A. | 29,433 | Yet to be decided | • REC Power Distribution Company Limited (RECPDCL) appointed as Project Management Agency on 30 Aug 2016  
  • Bids for AMI opened on 29.01.2018. Four bidders participated. Tenders for SCADA opened.  
  • Technical Bid evaluation for AMI and SCADA in progress  
  • Latest update is awaited from utility*  |
| 13  | Amravati, MSEDCL, Maharashtra | No consultant                                                            | AMI, OMS, DR                                                                   | N.A. | 1,48,495 | Yet to be decided | • Bids are opened on 3rd May 2018 and evaluation is under progress.  |
| 14  | Congress Nagar, MSEDCL, Maharashtra | No consultant                                                            | AMI, OMS, DR, SCADA                                                            | N.A. | 1,25,000 | Yet to be decided | • Bids are opened on 3rd May 2018 and evaluation is under progress.  |


*Latest number of customers

## New Tenders for Smart Metering in India

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Utility</th>
<th>Tender Details</th>
<th>Submission Dates</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>KSEB</td>
<td>Appointment of Implementing Agency for Implementation of Advanced Metering Infrastructure (AMI) with Smart Meters under IPDS for all the consumers of Electrical Section, Kesavadasapuram in Thrivananthapuram City</td>
<td>30 August 2018</td>
<td><a href="https://bit.ly/2MshxC0">https://bit.ly/2MshxC0</a></td>
</tr>
<tr>
<td>2</td>
<td>KSEB</td>
<td>Appointment of Implementing Agency for Implementation of AMI/Smart Metering systems covering 3,21,800 nodes under IPDS in 63 towns of Kerala state</td>
<td>12 September 2018</td>
<td><a href="https://bit.ly/2nRxRgY">https://bit.ly/2nRxRgY</a></td>
</tr>
<tr>
<td>3</td>
<td>WBSEDCL</td>
<td>Cloud based End to End Advanced Metering Infrastructure (AMI) solution for consumers having Connected Load 5 kVA to 50 kVA and also having monthly consumption 500 unit and above</td>
<td>05 September 2018</td>
<td><a href="https://bit.ly/2BsLlcL">https://bit.ly/2BsLlcL</a></td>
</tr>
<tr>
<td>4</td>
<td>BSES Yamuna</td>
<td>Supply of 1-Phase and 3-Phase Smart Meters with HES Prepaid Engine and SIM Card</td>
<td>29 August 2018</td>
<td><a href="https://bit.ly/2ONH9WO">https://bit.ly/2ONH9WO</a></td>
</tr>
<tr>
<td>7</td>
<td>BSES RajdhanI</td>
<td>Communication canopy network for smart grid applications &amp; advanced metering infrastructure, for BRPL</td>
<td>20 September 2018</td>
<td><a href="https://bit.ly/2v0lnrH">https://bit.ly/2v0lnrH</a></td>
</tr>
<tr>
<td>8</td>
<td>BSES RajdhanI</td>
<td>Supply &amp; installation of smart meters (single phase, three phase WC, LTCT, HT, and DT)</td>
<td>20 September 2018</td>
<td><a href="https://bit.ly/2v0lnrH">https://bit.ly/2v0lnrH</a></td>
</tr>
<tr>
<td>9</td>
<td>UGVCL</td>
<td>Purchase of 1 phase and 3 phase smart meters for UGVCL in Gujarat</td>
<td>27 August 2018</td>
<td><a href="https://bit.ly/2N33M97">https://bit.ly/2N33M97</a></td>
</tr>
<tr>
<td>10</td>
<td>HPSEB</td>
<td>Supply of ISI Marked Ac Single Phase, 2 Wires, Whole Current, Static Energy Meters With IRDA Port of Accuracy Class 1.0 Of Assorted Ratings in Himachal Pradesh</td>
<td>05 September 2018</td>
<td><a href="https://bit.ly/2nQvdIn">https://bit.ly/2nQvdIn</a></td>
</tr>
</tbody>
</table>
India Smart Utility Week 2019

International Conference & Exhibition on Smart Utilities for Smart Cities

12 - 16 March 2019
Manekshaw Centre, New Delhi

ISGF is organising Innovation Awards as part of India Smart Utility Week (ISUW 2019) to foster and recognize break through innovations in Smart Grid and Smart Utility Domains.

Best Smart Grid Project in India by Utility

Best Smart Grid Project in India by Industry

Innovative EV of the Year

Smart Technology of the Year

Best Project for Household Electrification

Nomination Categories

1. Smart Startup of the Year
2. Smart Incubator of the Year
3. Most Progressive Gas Utility in India
4. Most Progressive Water Utility in India
5. ISGF President’s Award for the best contribution towards growth of Smart Grids in India

Send Your Nomination

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30 November 2018

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